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TRANSACTIONS

OF THE

MANCHESTER STATISTICAL SOCIETY

SESSION 1886-7.

AND INDEX.

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
AND 27 PATERNOSTER BUILDINGS,
LONDON.
1887.

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*** The writers of papers are alone responsible for the statements of fact, and for the opinions contained in their respective communications.

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MANCHESTER STATISTICAL SOCIETY.

The Basis of Social Prosperity.

By the President (Mr. Thos. B. Moxon).

Read November 24th, 1886.

As our city and county have long enjoyed an enviable reputation for the soundness of their economic beliefs, it seems very appropriate that our Society, which perhaps is more intimately interested in the study of political economy than any other association in the district, should devote some attention to the economic problems which are of such vital interest at the present time.

It is, too, the more desirable that we should do this because there is a disposition in many quarters to deal with these questions in a very superficial way; and though upon the right answering depends the future of both our national and social life, they do not generally receive that thorough investigation and careful testing which their importance calls for.

Political economy is, in fact, at present a much discarded science. Its principles are unknown by many, ignored by still more. We do not bring our projects to the test of sound economic principles, but with a confident opportunism, regardless of the teachings of science, select that course which appears most likely to obviate the difficulty of the present moment, and leave the future to take care of itself. We measure national life by decades instead of by centuries, and imagine that human nature has been so metamorphosed that the lessons of the past are not worthy of attention in considering our present surroundings.

Yet what is political economy? Is it not the science of national life?—the science which treats of the nature, the production, and the distribution of wealth treats of that for which men band themselves together as communities; and though we may have lived political economy all our lives without knowing it, when we come to law-making we are likely to go far astray, unless we understand the natural laws which are at the basis of all prosperity. If we would promote the greatest happiness of the greatest number, we must first know of what that happiness is composed.

"No one," says M. About, "is considered to be ignorant of the civil and penal laws which control us, and in reality no one is unacquainted with their broad outlines. Why should the large majority of such a nation as ours be still ignorant of economic laws, of these eternal and immutable laws which proceed from nature herself? Why should the first innovator who comes to sap the foundations of society with paradoxes and sophisms take us always, or nearly always, unawares? Why are capital and labour, two allies bound together by nature, eternally in opposition, not to say at war? Why do the worthiest men in the world reciprocally charge each other with dreadful crimes: the one crying that they are being stripped of what they possess, the others protesting that what they had not has been taken away from them? . . . Common ignorance of what is best, alike for the individual and the community, is the real source of all the mischief," he asserts, and we are compelled to agree with him. We can indeed rejoice with him that in our country also "workmen have learned to be on guard against the charlatans of political economy, who promise to double our wealth by arresting the labour which produces it." But there are many other doctrines equally dangerous, whose fallacies are not so glaring, and to deal with these more insidious evils nothing but a sound knowledge of political and social economy will avail, not possessed by one class only, but by all the sorts and conditions of men who go to form the State.

There never was a time when it was so essential that economic truths should be widely taught and understood. The many privileges we enjoy are a heritage from men who, to the best of their abilities, worked and thought for the good of their country. They may not have taken such a comprehensive view as we take, or imagine we take, of national life. As to that the disgrace lies with us, not with them, if our views are no clearer, our aims no wider than theirs were; but if they withheld political power, they were also capable of withstanding popular prejudice, and, without sympathy for democratic tendencies, they nevertheless managed to benefit their fellows.

How strange it seems that Free Trade was secured for us under a limited suffrage, which the universal suffrage of the United States fails to obtain, or even to desire; how marvellous that Napoleon III. should give a warm reception to Cobden's views, and that his republican successors should never weary in denouncing them; how surprising that the Code Napoleon should be the accepted basis of modern jurisprudence.

To-day we are our own rulers, and year by year we grow fonder of taking a more and more direct management of national affairs. Have we ever considered what knowledge we possess of political problems, or of the science of government, to qualify us for the responsibilities we have assumed? It is true, in the words of Bentham, that "if you place power in men's hands, they will use it for their own interest." But do we know what is for our own interest?

In everything except politics we clamour for technical education and special training, and yet in politics we assume an inherent knowledge of problems the most intricate and complex.

Rousseau, advocate of democratic government as he was, was not ignorant of the difficulties of the path: "How can a blind multitude, which often does not know what it wants because it rarely knows what is good for it, accomplish of itself an enterprise so great, so difficult, as a system of legislation? Of

itself the people always desires what is good, but of itself it does not always see what is good. It always means well, but the judgment which guides it is not always enlightened."

The fact is, as M. Taine puts it, "a human society, and particularly a modern society, is a vast and complicated thing;" and if we are to undertake not only to work the machine, but also to alter and improve its various parts, it is not enough that we should be acquainted with the small portion which occupies our daily attention, we must study and learn the mutual relation and dependence of one part on the other throughout the whole of its complicated construction. We might as safely undertake the work of a surgeon without the study of anatomy as undertake the work of a statesman without the study of political and social economy; and yet the tendency of the age is to assume that each one of us is competent to express an opinion upon these difficult questions, on the right answering of which depends the prosperity and progress of our land. It would indeed be an advantage if the theories propounded were completely and carefully expounded; but unfortunately, to use the language of Sir Henry Maine, complex questions, vaguely conceived and vaguely stated, are dealt with at haphazard.

Democracy is assumed to be something antagonistic to monarchical rule; but we shall do well to remember that "democracy is simply a form of government, and has the same duties to perform as a wise king." As, then, a wise ruler concerns himself with promoting the happiness and prosperity of his subjects, it is our business to consider what will promote the happiness and prosperity of ourselves and of our country, for States are composed of individuals, and the laws which promote or control the progress of the citizen are identical with those which govern the development of the State; only we must take care to distinguish between permanent and transient effects, since what may be advantageous at present may, perchance, carry in its train inevitable evils far outbalancing its temporary benefit.

The first economic law we find recorded is, "In the sweat of thy face shalt thou eat bread." Labour has ever since been a necessity of our nature. But labour is not merely hand-work; whoever contributes to the common stock of wealth or happiness is a labourer, with the same right to the title as the man who guides the plough or wields the hammer. To quote again from M. About: "All the levers existing to-day may be put into the melting-pot; all the drays and wheelbarrows may be cast into the fire; all the steam-engines may be taken to pieces; all the telegraphs taken down; science, which is the soul of all these useful machines, will survive their destruction, and will replace them in a few days. Thus head-work, as it is vulgarly called, is at least as productive as the work of the arms. Draw a comparison between a good stout farrier, who shoes twenty-five horses in a day, and a small, old, shrivelled mathematician who puts figures and formulæ on paper, and you will see that the larger producer is not he who hits hard."

Labour, this necessity of our nature, is also the first step to prosperity, and that State will prosper most which possesses the most effective staff of labourers. I say most effective, rather than most numerous, because skill may, and often does, overbalance number; which leads us at once to the corollary that education is essential to prosperity—that the best way of making man prosperous is by drawing out all the possibilities of his nature. Labour is often spoken of as an opposite of capital; yet capital is but "consolidated labour," and it is as necessary to prosperity that the capitalist should labour to employ his capital profitably as that the workman should employ his labour profitably—that is, in some occupation of a reproductive character.

The man who produces anything desired by his fellows to add to their comfort or pleasure is a labourer; but equally so is the man who occupies himself in the conveyance of those productions to the place where they are required, and whom we are accustomed to term the distributor. What good is a bountiful harvest unless it can be brought to those who want food? The distributor alike

benefits the farmer who produces and the townsman who consumes his grain, and has to be paid by both for his useful services; but, as he adds nothing intrinsically to the value of the goods he sells, it follows that the fewer labourers there are engaged in distribution, so long as that work is thoroughly done, the greater the prosperity of the State. The disposition of our time to "get rid of the middleman" is a practical exposition of this law, but the proviso that the work of distribution must be efficiently done should not be lost sight of. We may save the penny and lose the pound, if in the complexities of modern business we take upon our shoulders too many of the duties of the middleman. The division of labour is an economy, but it is necessary that each labourer should be fully employed to derive benefit from the arrangement.

Mankind no sooner experienced the necessity for work than it recognised the need of combination. The solitary man found himself unable to cope with the ravenous beasts and their immediate successors, not yet extinct, whose sole standard of right is might, and so communities were formed for mutual protection.

It would be idle to deny that many of these original combinations were quite as much for offensive as for defensive purposes—quite as much for the plundering and enslaving of others as for the protection of themselves; and though in time combination was found to be as advantageous for promoting the common weal, by a more or less complete division of labour, the original taint survives in most associations, as it does in most individuals, and reveals itself in a desire to use the power which has secured freedom for ourselves in enslaving to ourselves those who are not its possessors.

With these primitive communities originated social law. They early discovered the necessity of regulations to govern their internal relations. The right of might which governed their external policy had its reflex within the little State; and there, too, combination placed the weak in a somewhat better position to withstand the exactions of the strong, and so laws were formed, defining mutual duties and mutual rights.

If labour is essential to prosperity, how is that labour to be promoted? The greatest and only all-powerful incentive to labour is the assurance that what a man earns by his labour he shall have full right to enjoy, wholly and absolutely. As Bentham says: "All the mechanism of human society depends on the satisfying of reasonable expectations, and, therefore, in the strict maintenance of proprietary right and the inviolability of contract." Labour, which is at the foundation of prosperity, is, then, itself dependent on the protection of law. Prosperity is dependent on the permanency of the State and of its laws, and in the words of Sir Henry Maine, "the greatest duty of a nation is that its government should compel obedience to the laws, criminal and civil, and to allow a portion of the community to defy a law it dislikes would be a crime which hardly any other virtue could redeem." Certainly this is so in relation to social prosperity, for if prosperity means a measure of wealth, and wealth is the product of labour, how can we expect labour to be expended where the reward is uncertain? Granted that in our imaginary original community all started on an equal footing, how long is it likely that equality continued? Were all equally fleet in the chase, were all equally strong to labour, were all equally shrewd in their arrangements or thrifty in their habits? We know human nature well enough to know that equality is not inherent, and that it is impossible of attainment. What, then, would be the effect upon these labourers of the non-recognition of proprietary right? Would the State progress, would men labour and save, to see their earnings divided among the idle and improvident? Undoubtedly not. A State in which such regulations had place would rapidly sink into the lowest state of barbarism. "You may, so to speak, take the heart and spirit out of the labourers to such an extent that they do not care to work." And it was long ago observed that the Turkish Government had impoverished some of the richest countries in the world far more by its action on motives than by its positive exactions.

"What, indeed, tend to level human conditions are the indolence and prodigality of those having possessions, the labour and saving of those who wish to acquire possessions." For the motives that impel to labour infallibly entail an inequality in the distribution of wealth. In order that labour may conduce to prosperity, it is also essential that it should be accompanied by thrift. The fisherman who, drawing his booty to shore, consumes all his catch at one meal, may enjoy a good dinner, but he cannot be said to be far on the road to prosperity; whilst he who secures and preserves a portion of his taking for use on a future day has made a forward step to comfort. He is a capitalist. Thrift produces capital, and capital is essential to true prosperity.

The law that every man has a right to what is his own, although essential to prosperity, is diametrically opposed to the creed of the Socialist—"To each one according to his needs." M. About says, eloquently: "Man is a divine creature, because he is the final product of the creation; because Nature has formed nothing more intelligent and more capable of improvement than he. Each of us, at his birth, enters into the heritage of a sovereignty which renders his person inviolable. In principle, if not in fact, we are all equal, because we all share the same august character. We are all free-born in this sense, that no one has a title to subject another to his will by force. Right signifies neither more nor less than the inviolability of the human species." And so we all have a right to live; but on what conditions? That we earn our living. The capital accumulated by the savings of all past generations is at our disposal,—we feed on it, live on it, in more or less comfort, until we are strong enough to work, and then we may use it and add to it by our labour. How was it gathered together? By work, thrift, self-denial. The road is open to us, and by adopting the same means we, too, may become its possessors. Society owes us nothing except to give us full freedom for the exercise of our powers; and this is another essential to prosperity—Freedom.

All capital is simply, as we have said, the savings from past labour—consolidated labour. What is the use of land until labour is expended upon it? It must be cleared, and hedged, and drained before it will bring forth abundantly; labour must be expended upon it. But whilst this is being done, how is the labourer to be fed? Where is he to be lodged? His food is the savings of past years—capital; his house is the product of past labour—again, capital. Nay, it is unnecessary to argue out the question. Every day we read that the emigrant to new lands, if he is to make progress on the soil, must have a few hundreds of capital to start with; that is, he must be able to work and to wait for the return. Why, then, should the owner of land be so strongly denounced; the rent he claims is interest on capital, a remuneration as certainly his right as the remuneration for any labour. If his past labour proves inefficient from any cause whatever, he must be contented to receive what it is valued at—his rents must fall; but why should he be placed in any different position to the owner of any other article? Why, on the one hand, should he be subjected to special governmental interference; or, on the other, be granted special privileges?

The merchant takes the risk of his profits or his losses. If his profits are enormous, we do not propose to mulct him of them by legislative enactment; we leave it to be rectified by trade competition. If he has losses, we do not propose to relieve him out of the national exchequer; and both decisions are equally reasonable. But if we deprive him of the results of his own enterprise, we ought equally to protect him against the losses which fall upon him. If for the good of the nation we fix judicial rents for the land, equally for the good of the nation we should, as they do in France, fix judicial prices for the bread. Why should we protect the farmer against the landlord, and leave the consumer to the tender mercies of the farmer? Why should the landlord of all capitalists alone be deprived of his proprietary right? Why should the man who invested his money in land, at the high prices of

eight years ago, be forced against his will to part with it at the valuation of to-day, whilst owners of capital in other forms are allowed to hold their investments, if they wish, in anticipation of better times?

If the laws of past ages have been unduly favourable to him, that should be a warning to us not to so lightly indulge in legislation, which may be as unjustly unfavourable. Lord Hartington's theory of the maximum of liberty and the minimum of law appears to be the mark which we should set before us. More injuries are effected by bad laws than are relieved by good laws, and probably greater success would attend our labours if we studied rather to eradicate unwise laws from our statute book than to burden it with additional enactments. I must guard myself from conveying the idea that I regard our laws relating to land as beyond improvement. Whilst far from adopting such a belief, I maintain that no law which interferes with proprietary right can prove in the long run beneficial to this or any other country. What is proprietary right is an inquiry which needs deep investigation and careful thought. It is a question as important to the tenant as to the landlord, and upon its right understanding depends the success of all land legislation.

Freedom is essential to prosperity. We often take far too limited a view of what Free Trade really means. It is not confined merely to the buying and selling of commodities; it is a principle which should dominate the whole of our social system. Whatever a man possesses is his own, and, subject to the single proviso that the good of the commonwealth must not be sacrificed to the advantage of any of its members, he has an indubitable natural right to sell it where, when, and as he wills. Of course this single exception itself needs to be qualified and narrowly defined, or it still leaves the door open for the introduction of so many limitations as to practically deprive a man of the very freedom we advocate. Nothing but a thorough knowledge of social economy will enable us to clearly comprehend what are the natural and lawful limits of freedom.

Our danger lies in the belief that "government can indefinitely increase human happiness; *i.e.*, that good things are unlimited in quantity, but are now doled out unequally and unfairly." The fact being that only by labour and thrift can the good things of this life be increased and secured, and more is to be got for human happiness by private energy than by public legislation. How little the most popular government can do is seen in the United States. "Never was there a country where the weak were so pitilessly pushed to the wall, and where such inequalities of private fortune have risen."

The right of men to combine for the attainment of their own aims is undoubtedly just and proper, so long as those ends are not prejudicial to the commonwealth; and therefore those combinations which we call Trades Unions, which have for their object the prosperity of their members, cannot be objected to. They may, and I believe they have, done harm to the country and to themselves by forcing wages up to a point which has given the foreigner an opportunity to undersell us in foreign and even in our home markets, and so fostered manufacturers in other lands, which we shall find increasing difficulty in dealing with; but nevertheless so far they are within their rights. When, however, they exercise pressure in the slightest degree to induce those who are not in their combination to abstain from work, they violate the laws of freedom and of progress. The right of any other man to work for what he pleases is as indubitable as their right to fix a minimum wage at which they will work.

Strikes, too, however injudicious we may think them, are lawful within exactly the same bounds; but that men should decline to work because their wages do not please them, and then expect their wives and families to be supported out of the public rates, is one of the most marvellous paradoxes our age affords. I fully endorse M. About's opinion on the subject of general combinations to affect wages: "A world-wide organisation might raise wages in a few years; it remains to be seen if the working man would be

sensibly better off—and this I deny." Education—not merely the acquisition of facts, but the basing of a sound judgment on those facts—is the nostrum by which the evils under which labour suffers must be cured: an education which enables man so to apply his labour as to extract from nature a larger return for lesser exertion; and, quoting from the same writer, "All men, without exception, have a personal interest in instructing other men. All men, without exception, are personally interested in enriching other men," because the more one knows the more he can produce, and the greater the supply of capital the better the demand for those productions.

To sum up, then, the bases of social prosperity appear to be labour, education, thrift, and freedom, and to this last may be added durable legislation; for "economic liberties are incompatible with uncertainty and agitation in the public mind."

In conclusion, I must express my indebtedness to that delightful book by M. Edmund About, "Handbook of Social Economy," translated by Mr. E. F. Rae, published by Strahan and Co., London, and the very thoughtful treatise on popular government written by Sir H. S. Maine. If this paper should be the means of introducing these works to any of our members, they will readily excuse its shortcomings in the pleasure and information they will afford them.

MANCHESTER STATISTICAL SOCIETY.

The British Empire and Imperial Federation.

By C. E. Howard Vincent, Esq., C.B., M.P.

Read January 21st, 1887.

There can be no doubt that Imperial Federation is one of the most important subjects of the day. Little more than two years ago it was generally declared to be far beyond the range of practical politics. But if any proof were needed, which it certainly is not, of the rashness of any assertion regarding the actual range of politics, it is assuredly found in the fact that the Federation of the British Empire is to-day the goal towards which all patriotic subjects of the Queen are shaping their public action, and directing their individual influence. It is felt indeed, even by the most enthusiastic workers in the cause of Imperial Federation, that it would be unwise to go too much in advance of public opinion, or to endeavour to obtain support of this or that particular scheme of Federation. The task of those who are convinced not only that Imperial Federation is feasible, but that it is essential to the long continued union, stability, prosperity, and might of the Empire, is as yet confined to the strengthening by all possible means of the ties connecting the Mother Country and the Colonies. This is the single article of the policy of the Imperial Federation League in Great Britain. It is the purpose for which it has been established in many Colonies.

What the Empire Is.

Let us consider the problem from the practical point of view of undeniable facts. The prospect of bringing into an united whole the three-score continents, territories, and islands owned by the British people is one which may well inflame our national ambition, and open up to the greatest sceptic among us a glorious vista of unassailable power. But many may well say that they require to be convinced, not by attractive conception or persuasive language, but by the harder outlines of commercial calculation. A comparison of the British stock-in-trade with that of our friends, rivals, and competitors, will materially assist us. Let us look on

The Empire as a House of Business.

If you acquiesce in the proposal, we may consider the British possessions in the world under the following heads:—1. Area. 2. Population. 3. Wealth. 4. Commerce. 5. Defence. 6. Administration. We shall then be able carefully to consider the advantages of an amalgamation between the parent house and the flourishing and powerful branch establishments which have been founded by our sons, peopled by our blood, financed by our money. There is a sentimental side of the question, and it is one to be encouraged both in public and in private. But upon the present occasion let us put it aside, and view the proposal laid before us as business men and as a business transaction for the partners in the original concern and for those of the daughter houses. The question really is between amalgamation and separation sooner or later.

The Area of Operations.

As I said, our area of business operations is the first consideration. This now extends over more than nine million square miles, having increased no less than seventy-five times in about one hundred and fifty years. It is needless to say that there is no example whatever in history for such an immense

extension of dominion within a similar period. Not only is the British Empire the largest in the modern world, being an eighth larger than All the Russias, three times the size of the United States of America, nine times the size of France and all her dependencies and colonies, and forty times the size of Germany, but it represents four of the great Roman Empires of olden time. That this great dominion should have been acquired by two comparatively small islands, tenanted by four different races, unfortunately not always of one mind between themselves, may well make us proud of the courage, the valour, and the enterprise of our forerunners in the United Kingdom. It may be noticed that I ascribe to *enterprise* only the last place in the enumeration of the qualities which won for us the British Empire. Although the great continent-islands of Australasia have been won entirely by adventure, I put *enterprise* last, because we owe five million square miles of territory almost solely to the strength of the British right arm, to British pluck, to the naval skill of British tars, and to the temper of British swords. Let us hope, gentlemen, that these may never fail us. They have been occasionally paralysed by the infamous weakness and blindness of past boards of political directors. The result, on one occasion alone, was the loss of the States of America, which had it been otherwise might be now forming with us that Union of the Anglo-Saxon race towards which so many eagerly yearn, and which together represent the greater part of the wealth and the trade of the whole world.

The Number of our Customers.

The next consideration which presents itself to those who have grasped the area over which we are all at liberty to pursue our avocations under our own flag, is the number of fellow-workers, and kindred customers to be found therein. It stands to-day at the tremendous figure of more than 320 millions, or nine times our own numbers, and is hourly increasing. The proportion

which this bears to the numerical strength of other nations is realised by the fact that it is six times as great as the population of the United States of America, and three times that of all Russia. The German Empire contains but 46 millions; while France, with all her colonists and coloured subjects, can show but 68 millions—a number moreover which has a tendency to diminish rather than to increase. It is true that only some 50 millions out of the 320 are of our race, colour, or religion, but they are, for the most part, bound to us by the natural ties of affection and of interest.

British Wealth of Capital.

The third consideration is with respect to wealth, or may we not say, our available assets? Their full extent cannot, indeed, be even roughly estimated, for they include hundreds, or even thousands, of millions sterling invested in every quarter of the globe in private and in public undertakings of which no British record is kept, and the income of which is not even assailable by the tax collector. There is scarcely any considerable financial enterprise in which Governments or Associations embark, in any country, which can be carried to a successful conclusion without the assistance, if not of the city of London, at least of some portion of the British people. The extent to which we trust ourselves, and are trusted by foreign capitalists, is evidenced by a public debt of nearly 1,150 millions sterling, the interest of which only absorbs from one-fifth to one-sixth of the annual revenue of 208 millions sterling which is raised without the smallest difficulty by the representatives of the people themselves. Nor is it unworthy of notice and recollection at a time when we talk, with much reason, of a serious depression in many trades, that the annual value of property and income in the United Kingdom alone voluntarily returned for taxation in 1885 was 631½ millions, or sixty millions more than it was eight years before. Moreover, the value of the securities passing through the London Clearing House for the first ten

months of last year amounted to £4,841,000,000, or nearly a thousand millions more than passed during the whole year in 1870, and an advance of 5·9 per cent on the same period in 1885.

British Commerce.

Nor if we proceed to the consideration of commerce, apart from the wealth to which it is the chief contributor, is the result less amazing. The external trade of the empire—that is, the exports and the imports—amounts to between a thousand and eleven hundred millions sterling a year. It is carried in 13,500 British ships, of which five-thirteenths are propelled by steam, and having an aggregate burden of 11,000,000 tons. Nine-elevenths of this total belong to the ports of the United Kingdom. It is worthy of note that the external trade is conducted not only with foreign states, as is the case with every other power in the world, but to a very large extent between different parts of our own empire. Indeed, we find that the total mutual external trade between the British people living in various climes upon various soils amounts to nearly three hundred millions a year. It is astonishing that in the face of these absolutely incontrovertible facts there has ever existed, or there does exist, any individual capable of under-estimating the value of a colonial empire. Nor is it a question of importance or interest only to merchants and capitalists. There can be no manner of doubt that relationship in blood, uniformity of government, simultaneity of policy, identity of custom, and one system of law contribute more than aught else to engender that mutual confidence which is the only basis of successful commerce. Good trade means constant employment, and when we find that our colonial and Indian fellow-subjects purchase annually one hundred and seven and a half millions worth of the manufactures of the mother country, and that we in the United Kingdom buy nearly one hundred millions worth every year of the industrial productions of our brethren beyond the sea, it is not necessary to show in further detail that an United

Empire is a question for the people themselves throughout its length and breadth.

It may not become us to boast, but it is impossible for Britishers not to feel proud of these stupendous and unrivalled facts. There is no one who can show a like state of affairs, or even any approach to such results in any country in the world. We complain of German rivalry. She has one-fourth the number of our ships, one-fifth of our revenue, one-third of our external trade. We look at France, and find a larger debt, and not much more than one-fourth the outward commerce.

The Defence of the Empire.

When we thus perceive what it is that we possess, we may well ask ourselves how we are prepared to defend it? We cannot bury our heads in the sand like the ostrich, and suppose that because we do not choose to look at our fine feathers and keep them secure and in order, that they are not perceived by the rest of mankind with feelings of admiration and of envy. As I have already said, our empire was obtained mostly by our ships and our guns pointed by true British eyes. There are as yet no signs, with the hand of all continental Europe on the sword hilt, of the speedy advent of that millennium when we shall be able to keep our own by other means than English courage and Sheffield steel.

The Imperial Navy.

First, as to the naval strength of the empire. We have 58 ships against 44 French, 18 Italian, and 18 Russian, or 80 ships of every class of these three nations, and 35 sea-going armour-clads against their 50. These figures can hardly be deemed wholly satisfactory by the most obstinate economists, and especially when we remember that the population of the United Kingdom is only kept from starvation by a weekly import of food amounting in value to more than £1,500,000, and that the attackable coast line of the scattered empire is tens of thousands of miles in extent.

Doubtless these national facts, never to be forgotten in the face of whatever exigency of party politics may unfortunately arise, were in the mind of Lord Randolph Churchill, when he said "that the very food and wages of the millions of this country absolutely depend upon the effective maintenance of the empire."

There can be no doubt that the Colonies are one and all now in a position to share with us the responsibility of defending our common empire and our mutual trade against all comers. They are ready and anxious to do so, and there is hardly a man in Greater Britain who does not feel that we should be, as the late Sir Alexander Stuart, for many years Premier of New South Wales, said, in a better state of preparation for defence, and that the whole expense should no longer be left upon the shoulders of the Mother Country by the rich sons of the New Worlds. This was the unanimous feeling expressed at the recent Australasian conference on the subject, and it will undoubtedly be found to animate the colonial delegates to the Imperial Conference summoned in this Jubilee year by the Prime Minister, Lord Salisbury. Indeed, some dozen torpedo boats and two or three small cruisers are already in possession of the Australasian colonies and the Indian Government. But, however praiseworthy the $3\frac{1}{4}$ millions expended by the people of Victoria in the establishment and maintenance of defences during the past thirty years, we must remember that united action is worth a thousandfold more in war —or, indeed, in peace for that matter—than isolated, detached, and necessarily inadequate measures.

The Imperial Land Forces.

With respect to the land forces, the need for more uniformity and organisation is scarcely less great. The empire has upwards of two million drilled men scattered over its surface; but they are so miserably organised that it would be difficult to place more than from 50,000 to 100,000, if so many, in the field at home, or in any part of the empire. There are men, but officers, equip-

ment, horses, rifles, cannon, are lacking in immense numbers in every direction. We do not want great standing armies, such as land-surrounded nations are obliged to maintain, but it costs little more in the long run to take thought for the morrow and make the best, if it be only in system and organisation, of the great resources available. At present no indications are apparent of any serious effort in this direction. I doubt, too, if any will be made if the army, like the navy, is made a political machine, controlled by changing and inexperienced politicians and a pedantic civilian staff. The naval and military art has, believe me, to be learnt by study and the practical application of theories, in common with every science and trade.

The Administration of the Empire.

The last heading under which we settled to consider our subject matter was that of administration. Great and almost paramount as is its importance we cannot here examine it at great length.

The British Empire is administered by over fifty separate governments. Those which are formed on the directly representative system, such as the Dominion of Canada, five of the seven Australasian governments, and Cape Colony, are in possession of distinct constitutions, and are absolutely independent as regards internal and local affairs. The only right reserved to the Crown is that of being represented at the expense of the colony by a governor, and of finally approving Acts of Legislature. The veto is, however, never exercised, unless a bill conflicts with an enactment of the Imperial Parliament. Foreign affairs and representation in foreign states are conducted entirely by and at the charge of the Mother Country. India and the Crown Colonies are administered by local governments, partially representative in character, and controlled, often with varying wisdom, by Downing Street.

The Advantages of Federation.

Having thus taken stock, so to say, of our possessions as members of the British people, and glanced at our capabilities for defending them from attack, and the system by which they are administered, let us consider if a more homogeneous system would not conduce to our mutual advantage.

It would be absurd not to recognise that there are some who contend that we had better let well alone. Their opinions are entitled at least to respect, and most especially when they find exposition in a venerable politician whose services to the union of the Mother Country are as great as those lately rendered by

The Right Hon. John Bright.

But I must ask permission very briefly to point out, and with becoming deference, one or two seeming inconsistencies in his reply to the invitation of the President of the Society to honour us by his presence this evening.

It is not necessary that I should read the letter, for it has appeared in nearly every paper in the country, and will have been studied, though I trust not to conviction, by thousands who will not think of the other side of the case. Mr. Bright says that "he has no sympathy with the objects and purpose of this meeting." I must dwell, gentlemen, on the fact, which the right honourable gentleman could not have understood, that our object is limited to doing something, however little, more firmly to unite the Mother Country and the Colonies. No real statesman can have any other wish, and I find that Mr. Bright himself expresses anxiety in the very next sentence "that the colonies should remain attached to and in perfect friendship with the mother country."

But he continues: "England will not be in any degree influenced in her policy by Canada, by Australia, or the Cape." Gentlemen, I feel that this is not the fact. Speaking in this great city of the empire, in the presence of many representative men, I do not hesitate to declare that there is no considerable section of

the English, the Welsh, the Scotch, or the Irish people, who are insensible to the claims, to the prosperity, and the interests of our kindred—our countrymen, our best friends, our best customers—in Greater Britain. We do not seek to interfere with colonial laws. It is true that many of us look forward to a reciprocity of tariffs—to the day when free trade means free trade. To-day, it is in too many states—Sell everything to England, but buy nothing English. But as regards Greater Britain we can patiently abide our time.

Mr. Bright thinks that England's foreign policy has been blind. Is he not wrong in dignifying British procedure abroad for the past twenty years by the name of a policy? Is he not right in saying that our weak, shifting action may involve us in war with a European power? But it is because we ha e let the ambitious hunter come too near our interests. The colonies have as much concern with foreign states as we have. Canada has many questions with America. Australasia has of late years had much cause of complaint against France: her interest in the preservation of the Suez Canal is equal to our own. Australia will never consent to our abandonment of India, and if the Mother Country fails in her duty in Hindostan, she will probably put on the mantle. It is with the present relations that the colonies would feel the strain of war. Then they would see how blind, how neglectful of imperial duty had been too many of our rulers, and, with a ruined trade and threatened coasts, might quit in disgust a false Union Jack. But united, federated in peace and in war, we have nothing to fear from the protective tariffs and the arms of all the world combined.

Mr. Bright asks "How would our Federation deal with the Fisheries dispute between Canada and the United States?" The answer is simple. The negotiations with the American Government upon this matter would be greatly assisted, and the interests of the Canadians more effectually safeguarded, by the presence in the Imperial Parliament of representatives of the people whose rights have been invaded. The same argument applies to the

negotiations with the French Government concerning the breach of the comity of nations in peopling their possessions near the Australian coasts with the most desperate criminals. Under the present system of neither voice nor vote in the control of imperial business, it is frequently felt, and with justice, in Canada, in Australia, in South Africa, and other parts of the empire, that the Imperial Parliament is insufficiently acquainted with the views and interests of the colonists. Nor can it be denied that as in point of area, population, wealth, and intelligence several of the detached continents now forming Greater Britain, are entitled to all the prerogatives of independent and sovereign states, their inhabitants have a right, which they will not long be denied, to participate in international affairs, and especially those in which they have a supreme interest. Mr. Bright is, no doubt correct in saying that had Canada been independent of Great Britain "she would have yielded to the arguments of her powerful neighbour." There can be no stronger testimony to the value of Imperial Federation. But for the support of the Mother Country the Canadians would have had to knock under upon this Fisheries' question, and would very soon lose that real independence they now enjoy. The effect of Imperial Federation would be, while preserving local autonomy, to fortify the interests of the British people all the world over, not only by the Mother Country but with the united front of the whole British Empire. Is not the advantage of such a state of affairs self-evident; as clear as that the strength, the wealth, the commercial power of the whole must be greater than that of a part?

Science has broken the barriers of nature. Wind and tide have been mastered. All that is needed to make the Empire really united, is a "long pull, a strong pull, and a pull all together." The great colonies have local government. We seek to create it in the Old Country. Our Imperial Parliament exists now in name, let it be created in fact. Let all bound by its decision have a voice in its imperial business. America, France,

Germany, have effected this. Is the problem mastered by foreign nations too intricate to be solved by the British People? No, this cannot be so. Mr. Mundella, formerly Minister of Education and lately President of the Board of Trade, said last week with regard to the Imperial Institute, which is to mark the accomplishment of the fiftieth year of the illustrious reign of Victoria Regina et Imperatrix, "that much of the present distress arose from the fact that the working classes did not know how great was their inheritance, and how vast was the field for their energies in the empire over which our Sovereign ruled." Let it be the object of every patriotic man to do what he can by example and teaching to remove this cause of suffering. Do not let the question rest. You have a duty to discharge to those who come after you. Let us accomplish the task which clearly lies before us of the present generation. It is gradually, carefully, cautiously, yet zealously, to establish Imperial Federation. Then, but only then, we shall leave a real British Empire, one and undivided, for all time, and one which our children may gratefully feel is constant and unassailable in the arts of universal peace, but ready if necessity arise to withstand the world outside its own limits.

MANCHESTER STATISTICAL SOCIETY.

Objections to Free Trade Answered.

By William Fogg.

Read February 9th, 1887.

There are many people who honestly believe that Free Trade is a great mistake, which will ultimately prove our ruin.

To call such people "fools," as is so often done, is neither dignified nor wise; it does not convince Fair Traders or Protectionists. A case which rests on truth needs not to use such epithets in place of arguments. If converts are to be made to "Free Trade," it must be by facts and arguments, teaching, if needful, again and again, truths which, however old to most people, are new to many.

The "Corn Law League," mainly instrumental in establishing Free Trade in England, was dissolved in 1846. In less than seven years Earl Derby acceded to office, pledged to restore the Corn Laws. The League was restored, and £70,000 was raised in a month to fight the battle over again. Since that time there have been many reactionary movements, fostered mainly in times of trade depression.

In 1869 there was the "Reciprocity Association," afterwards the "Revivers of British Industry." To-day we have the "Manifesto" of the "Fair Trade League;" but all opposing schemes, however differently named, have practically one common goal—"Protection," and, up to now, have had no effect upon the nation's tried and adopted policy. The advocates of Fair Trade fared badly at the last election, notwithstanding the pictures of big loaves, "all grown in England," which were shown to the working man as illustrating what "Fair Trade" has in store for him.

What is "Free Trade?" To be free is to be at liberty,

unrestrained, unconfined. But no trade is absolutely free. There are well-known principles of government which compel legislative interference and restrictions in trade, such as laws against adulteration of food, protection of life, morals, and other objects. Most trades have well-defined limits in which to operate. The miner is protected as far as possible from the reckless conduct of a fellow-workman; the sailor from the cupidity of unscrupulous owners; the factory operative from needless risk from machinery and injurious hours. But with such exceptions, and the levy of taxes necessary for purposes of revenue only, trade, as we have it now in England, is virtually free.

Every man in the community is at liberty to buy in the cheapest and sell in the dearest market, wherever that may be, here or abroad. The foreign worker is free to sell his labour or commodity here, receiving neither hindrance nor favour from the State, a plan which doubtless ensures the keenest competition always inseparable from "Free Trade," success being the reward of industry and ability, and failure the penalty of idleness and incapacity. Free Traders contend that harsh as this arrangement may seem, such competition is most beneficent in its operation, placing every man on his highest responsibility, to the benefit of himself and mankind generally; whilst Protection, on the contrary, stifles enterprise and cripples industry, resulting in the "minimum of production at the maximum of cost." Under the operation of "Free Trade" every community must of necessity settle down to producing that commodity which by special aptitude and natural situation it is most fitted to produce.

When all communities have arrived at this state, the most perfect economic conditions will prevail. From a producing standpoint the world will be at its best. This comparatively new doctrine in the world's experience is utterly opposed to that "leading string" principle of government which has prevailed for centuries, and has cramped enterprise and prevented growth by interference and prohibition, so that in our country the population only doubled itself in five hundred years from the eleventh century. So recently as George

III. the exportation of machinery for producing cotton, linen, woollen, and silk was prohibited. The artificer himself was also prohibited from transferring his labour to another country under a penalty of £500 fine, to be paid by the person who enticed him away; and if he himself refused to return after six months' warning, had all his goods, chattels, and lands forfeited, and was declared an alien outside the King's protection.

More recently still, for nearly thirty years, in the first half of this century, every square yard of printed calico paid a duty of 3½d., and although butter and lard were imported, they were not allowed to be consumed as food. Free Trade has put an end to all this. Instead of limitations we have now unbounded possibilities of production; instead of stagnation and scarcity we have now a constant cry of "over-production," an ever-increasing population, the best and most valuable production of any country, colonising the vacant places of the world with new life. The once-starved labourer has now abundance, as shown by the food imports per head, is better clothed and housed, has greater freedom, less work, more leisure, lives longer; pauperism and crime are reduced, and education easily obtainable. If Free Trade is not one great cause for this wonderful change, at least it must be conceded that such progress has been possible under forty years of Free Trade. It was not possible under centuries of restriction. Free Trade is again attacked, and a retrogade movement advocated by many earnest but mistaken men, whose objections must have our attention.

Let us take first in order the objection that it is—

"Not fair because it is all on one side."

Nothing seems more unfair than to charge another nation with unfairness because they adopt a fiscal policy different to our own. They are simply doing in their way what we are doing in our way—making laws in accordance with their own ideas of their own interest, and with the people's consent.

If they decide on a course of taxation which compels the consumer to buy only from their own home producer, although the same goods can be got 50 per cent less from a foreign producer,

what business is it to us that it should entitle us to cry out unfair? The consumer who labours under the burden and does not believe in it may cry out that it is unfair to him, and seek opportunity to amend the odious law, but it does not justify us in saying it is unfair to us. Because the national will in our case removes all fetters, it is not our business to call out unfair if the national will for purposes of its own seeks to impose restrictions. Whatever we may think about the wisdom or folly of their procedure, we have no right to call it unfair. We have not yet acquired the right to fix the policy of other nations.

To be unfair, is to be dishonest. Are we more honest than they? But it is said, it is "all on one side." But we cannot help that, we can only legislate for our side. The one-sided Free Trade we have is certainly the best side: if our people have not full freedom of sale, they have at least freedom of purchase. This freedom of purchase is the first necessary condition to success in selling. We have that special advantage in a greater degree than any other nation. Ours is the market of all others in the world, where all commodities centralise in competition with each other, giving facilities for cheap purchase, and consequent cheap production.

As we approach the Free Trade millennium, we shall have gradually to relinquish the special advantages which we have so long enjoyed by being first in at a good thing. One-sided Free Trade is not an unmixed evil. Every nation adopting high tariffs has virtually removed herself from competition, and to that extent, at least, has conferred a benefit on us. By this plan a range of prices has been erected sufficiently high to leave to us ample markets for our goods produced under Free Trade principles.

We may or may not be better off commercially than we are now, although the world generally will be, when there is Free Trade all round. Examine carefully the whole position of the United States; take in her area, population, productive power, wealth, freedom from debt or necessity for military expenditure, and say, whatever temporary advantages may flow to us from a

reduction of her tariffs, whether we shall not be commercially worse with her as a competitor in every foreign market, where at present we enjoy a comparative monopoly.

The question would be less serious if it simply meant the gaining of a new market. It means, in addition to that, the probable loss of more than we can possibly gain. A second objection is—

> "That Cobden said other nations would soon adopt Free Trade. They have not done so. Circumstances have changed, and if he were alive, he would be one of the first to advocate a change."

We have not to do so much with Cobden's prophecies as with an examination of his principles.

Do you suppose for a moment that if that great and far-seeing statesman could have known that other nations would not adopt "Free Trade," even in the next hundred years, he would have relaxed his efforts, altered his arguments, or varied his principles, and virtually, by such a course, have confessed that whilst his principles were true for all time the wisdom of their adoption depended upon their being adopted universally and within a given period of time? Is it not most likely, as the most enlightened Free Trader the world has yet seen, that he would have said: "If the world does not accept the principles of freedom in trade, so much the worse for its progress, but it is still an absolute necessity for England. That any concessions made to a foreign producer, enabling him to sell his goods free in your market, will make no loss, but help you to produce cheaper, and as long as the world stands, the cheapest producer will always have a customer for his goods. That so long as other nations carry out a policy which must materially raise prices, your policy will tend to reduce them, and give you the markets of the world." True, Cobden was a sanguine statesman; he had more faith in the rapid growth wise legislation than time has justified.

His vision of the future possibilities of the United States has been more than realised. The progress of that great republic is

one of the wonders of the world. In the light of history Cobden's prophecy will be right; the limitation of a few generations in its fulfilment will count as nothing.

But it is no proof that Free Trade is wrong because other nations have not adopted it. The most plausible argument in favour of adopting a protective policy in countries like America and our Colonies is the desirability of fostering industries at the commencement of the countries' history, in order to aid in their rapid development. Protection acts as a bonus to attract capital; it is a premium on emigration. Having almost unlimited territory, land is offered free, say 80 acres in Canada, and a pre-emption lot of another 80 acres, at 10s. per acre, on easy terms of payment. In any new country where such conditions prevail there may be very great prosperity, and yet little Free Trade with foreigners. There are piping times for the pioneers, who have little need to trouble themselves about the certain and inevitable penalty which these protective tariffs will entail, bringing great hardships to those who in all probability were not in at the bonus times. It is usually said that such tariffs are only intended for temporary service; as soon as the protected industry can stand alone it will have to do so; but when nearly all are protected, and the transition would evidently be a cause of great suffering, it is human to postpone the change. There are great forces to fight against. Probably we shall not live to see direct taxation in America, but many will live to see a very near approach to Free Trade. There is now the most urgent necessity for foreign markets pressing upon the people of the United States as an outlet for her greatly increased production. Think for a moment of the growth of that country during the last 20 years.

Population	has increased	69	per cent.
Hay crop.....	,,	106	,,
Cotton crop.....	,,	194	,,
Grain crop	,,	256	,,
Railway mileage	,,	280	,,
Pig iron production...	,,	386	,,

The increased growth of commodities over population points certainly to the necessity for increased exchange for the products of other nations.

The importance of this part of the subject must be my excuse for dwelling further on it in order to get an idea of the measurable distance of America's approach to Free Trade.

I know nothing which gives at a glance such a vivid picture of the area and possibilities of production in the United States as the chart given on page 32, which is taken from an article on "The Relative Strength and Weakness of Nations," which appeared in the *Century* magazine for January. I feel myself much indebted to its author, Mr. Edward Atkinson, the eminent statist of Boston, for the advance copy sent to me in December last, and strongly urge a perusal of the article, along with the second part on the same subject, which appears in the *Century* for February.

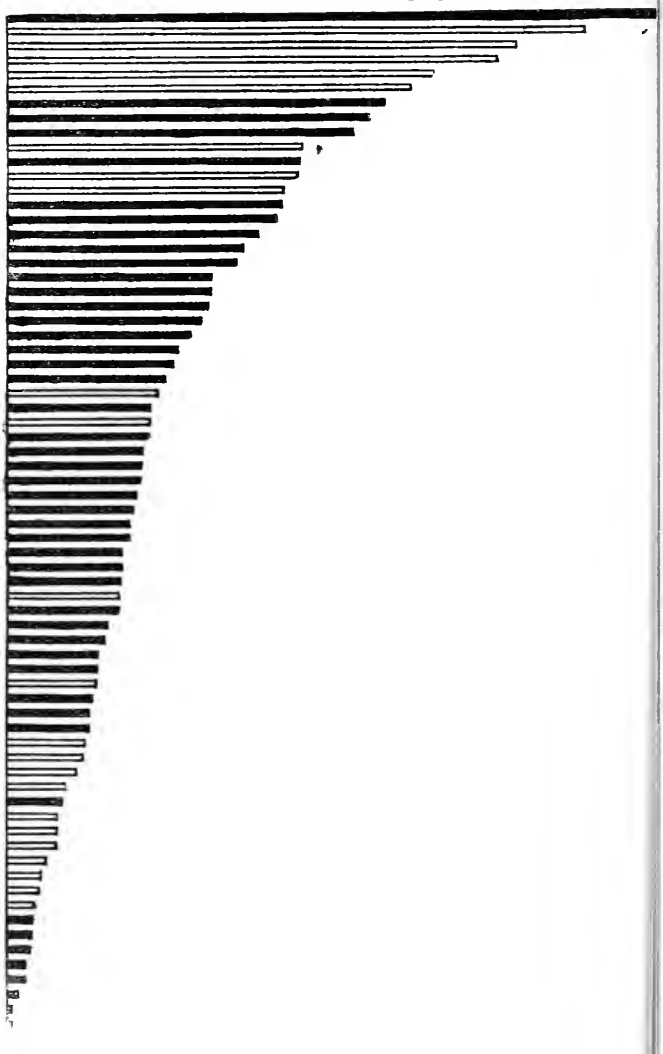
There are many potential forces at work, pointing certainly to reduced tariffs in America.

The reduction of the immense debt and consequent difficulty of spending the present revenue. The close competition of the Indian wheat grower, competing seriously with the American farmer heavily handicapped by the taxes paid to home manufacturers, and the growth of true economic principles, the finest example of which is seen in the recent report issued in December last by the Secretary of the Treasury at Washington. This report of Secretary Manning's is fine healthy reading for us Free Traders. He says, "Free Trade accurately describes the internal commerce of our States, it does not apply to our trade with foreign nations." "Taxes on imports are taxes on consumption." "Neither the producer nor the importer pays the tax, the consumer pays it; the place of origin is no criterion; the place of collection is no criterion; the place of consumption is where duties as well as excise are paid at last." "Although the importer or distiller advances the tax, he reimburses himself in the price to the consumer, who alone is taxed."

Under the heading, "our suicidal taxes on raw materials,"

GRAPHICAL PRESENTATION OF THE COMPARATIVE AREAS OF THE STATES AND TERRITORIES OF THE UNITED STATES AND THE COUNTRIES OF EUROPE, OMITTING RUSSIA AND ALASKA.

Name.	*Sq. Miles.*
1—Texas	274,356
2—Austrian Empire	240,943
3—German Empire	212,091
4—France	204,091
5—Spain	177,781
6—Sweden	168,042
7—California	157,801
8—Territory of Dakota	150,932
9—Territory of Montana	143,776
10—Norway	122,280
11—New Mexico	121,201
12—Great Britain and Ireland	120,879
13—Italy	114,296
14—Arizona	113,916
15—Nevada	112,090
16—Colorado	104,500
17—Territory of Wyoming	97,883
18—Oregon	95,274
19—Territory of Idaho	86,294
20—Territory of Utah	84,476
21—Minnesota	83,531
22—Kansas	80,891
23—Nebraska	75,995
24—Territory of Washington	69,994
25—Indian Territory	68,991
26—Missouri	65,350
27—Turkey in Europe	62,028
28—Florida	59,268
29—England and Wales	58,320
30—Georgia	58,000
31—Michigan	56,451
32—Illinois	55,414
33—Iowa	55,045
34—Wisconsin	53,924
35—Arkansas	52,198
36—Alabama	50,722
37—North Carolina	50,704
38—Mississippi	47,156
39—New York	47,000
40—Pennsylvania	46,000
41—Roumania	45,642
42—Tennessee	45,600
43—Louisiana	41,346
44—Ohio	39,964
45—Virginia	38,348
46—Kentucky	37,680
47—Portugal	36,510
48—Maine	35,000
49—South Carolina	34,000
50—Indiana	33,809
51—Ireland	31,874
52—Scotland	30,685
53—Bosnia and Herzegovina	22,125
54—Bulgaria	24,360
55—West Virginia	23,000
56—Servia	20,850
57—Netherlands	20,527
58—Greece	19,941
59—Switzerland	15,233
60—Denmark	14,553
61—Eastern Roumelia	13,500
62—Belgium	11,373
63—Maryland	11,124
64—Vermont	10,212
65—New Hampshire	9,280
66—New Jersey	8,320
67—Massachusetts	7,890
68—Connecticut	4,750
69—Delaware	2,120
70—Montenegro	1,770
71—Rhode Island	1,306
72—Andorra	198
73—Monaco	6



The visionary possibilities of the future product of the United States may be imagined by reference to t following statements:—

The land in actual use for growing maize or Indian corn, wheat, hay, oats, and cotton in the whole country n consists of 272,500 square miles, or a fraction less than the area of the single State of Texas.

The entire wheat crop of the United States could be grown on wheat land of the best quality selected from t part of the area of the State of Texas by which that single State exceeds the present area of the German Empire.

The cotton factories of the world now require about 12,000,000 bales of cotton of American weight. Good la in Texas produces one bale to an acre. The world's supply of cotton could therefore be grown on less than 19,(square miles, or upon an area equal to only seven per cent of the area of Texas.

after alluding to the "augmentation by at least a third of the surplus which their manufacturers can produce beyond domestic needs for sale abroad;" he says, "prolonging without necessity our war tariff taxes on raw materials, we have been undersold and excluded from foreign markets by nations not taxing raw materials. Despite their low-priced inferior labour, and the high percentage of labour cost included in their product, our taxed raw materials and their free raw materials have protected the so-called 'pauper labour' of Europe against American competition. Our increasing capacity to produce an industrial surplusage has been accompanied by war taxation exactly suited to prevent the sale of that surplusage in foreign markets. Out of our actual abundance this war taxation has forged the instrument of our industrial and commercial mutilation. Defeating our manufacturers in their endeavours to compete abroad with the manufacturers of untaxed raw materials, it has set them on a ferocious competition at cut-throat prices in our own home market to which they are shut up, and for which their producing powers are increasingly superabundant. Long periods of glut and so-called over-production have alternated with brief periods of renewed activity and transient prosperity like the present. These prolonged war tariff taxes, incompetent and brutal as a scheme of revenue, fatal to the extension of our foreign markets, and disorderly to our domestic trade, have in the last resort acted and reacted with most ruinous injury upon our wage earners. As the more numerous part of our population, our wage earners are of course the first, the last, and the most to be affected by injurious laws. Every government by true statesmen will watchfully regard their condition and interests. If these are satisfactory, nothing else can be of very momentous importance: but our so-called protective statesmanship has disfavoured them altogether. Encumbering with clumsy help a few thousand employers, it has trodden down the millions of wage earners. It has for twenty-one years denied them even the peaceable fruits of liberty."

Surely such home truths from such an influential source may

be safely left to "leaven until the whole is leavened." Mr. Manning closes his interesting report by advising the total repeal of duty on raw wool in order to reduce by half the expense of clothing to the American people." But notice the difficulty of the situation in attempting to legislate on the question. When once you touch this question of protection, the fabric falls. Will the wool grower. consent to pay a tax on imported woollen goods after his wool, no longer protected, has to stand the increased competition arising from free imports? Certainly not. Then what will become of the woollen manufacturer, who, in his turn, must submit to free imports of woollen goods.

The next objection we shall notice is the argument—

> "That other nations have prospered with Protection more than we have with 'Free Trade.'"

It is not contended that in other European nations with surroundings most like our own there has not been progress under protection. But no European nation has prospered as we have.

European nations generally have benefited by our wealth. Our continental neighbours possess all our mechanical aids to success. Free Trade meant this: "Platts'" machinery has covered the Continent—who could or would prevent it? You might with equal fairness prevent the exportation of Oldham yarns as Oldham machinery. It is now generally admitted that the loss of one is the loss of all, and equally so the gain of one is the gain of all. Europe has profited largely by our gain, just as poor people are better off for wealthy rather than poor and improvident neighbours. Ireland's deserted tenantry suffer because they are deserted in their poverty by those who draw their wealth from the soil. The general acquisition of our language on the Continent has been acquired as a means of sharing in the wealth of the English-speaking race.

One of the most reliable tests of prosperity and wealth in any nation is the condition of its wage earners.

As Mongredien says, "Wages are highest where most wealth is created. The present average rate of wages in Free Trade

England, now that everything is cheap, is at least 50 per cent higher than it was formerly in Protected England, when everything was dear."

The statistics of growth of population, consumption of food per head, longevity tables, wages, hours of labour, increased leisure and general well-being of the masses all point to the superior condition of our own people over the rest of European states.

The position of the operative in England and the contrast with those similarly employed on the Continent is shown in the evidence contained in the report of the Commission on Technical Education, and is a proof of our greater prosperity.

One of the Commissioners, Mr. Swire Smith, states: "There are no factory acts worth the name on the Continent, except in Switzerland, and children of tender years struggle through their 72 hours of labour per week, women and children working along in the night shifts with the men."

This is a strange comparison to our half-time system and 56½ hours per week.

Again he says, "An unlimited supply of operatives can be obtained abroad at wages proportionately as much lower as their hours are longer than those of English operatives."

He visited one of the largest mills in France, full of English machinery, operatives working 83 hours per week, yet the proprietor declared that either wages must be lowered, or the tax on imports raised, if he was to compete successfully with English-made yarns. Shortly afterwards he went to see one of the newest factories in Oldham, with majestic engines and engine-room handsome to extravagance; yet in this mill, with wages 50 per cent higher and hours of labour 56½ against 83, the cheapest cotton yarn in the world was being produced.

That the recent industrial depression had caused less suffering here than in France, Germany, or Belgium. "For ordinary workmen England was a paradise compared with any continental country." "They had more regular employment, better and cheaper food, and higher wages than any in Europe, and had

more leisure, more freedom, more protection for person and property, than any in the world."

The most serious injury done by the Corn Laws to the labourer was the fact that, whilst they raised the price of food, his wages did not advance. There is one great drawback to this eulogy of our own country, and that is the condition of our agricultural labourer; and the measure of his trouble is the extent to which he is denied "Free Trade," in land compared with other nations, who, in this branch of "Free Trade," at least, are much in advance of us, and have, accordingly, averted many dangers which a restrictive policy in other commodities would have inflicted. On this question the late Mr. Kay says, "We have been cutting away the base of our social pyramid, while nearly all other civilised countries have been pursuing an exactly opposite policy." We retain the old restrictive laws which have long since been abolished in France, Switzerland, Germany, Austria, Holland, Belgium, and Italy. The results are disastrous from a national point of view, and present the greatest evidence in favour of doing away with restrictive laws, and giving to land the same freedom which has been given to commerce with such beneficent results. These restrictive laws have helped to "drive out and decimate the rural populations, forcing these to emigrate to foreign soil or take refuge in overcrowded towns, and congesting the labour market."

Most of us are acquainted with the Domesday Returns of 1874, which showed that 10,207 persons own two-thirds of the whole of England and Wales; 1,700 persons hold about nine-tenths of Scotland; 1,942 persons own two-thirds of Ireland. Contrast this destitution with the condition of land in France, where 5,000,000 people hold an average of $7\frac{1}{2}$ acres each. These French peasants constitute the backbone of the nation, and in the night of dire distress trooped to Paris with their savings, slept all night in the streets, waiting for their turn to subscribe the millions of indemnity which was to rescue their country from the hands of the German conqueror.

Instead of primogeniture, long leases with antiquated covenants affecting society for generations after the death of the grantor, let us take away the "dead hand," and try "Free Trade."

In concluding this part of the question it must be remembered that a densely-populated country like Great Britain, with an area of only 120,832 square miles, cannot possibly expand in the future in the same ratio as a country like the United States, with an area of 3,095,245 square miles. It is one of the most remarkable features of modern history that this small island, anchored on the side of Europe, should have colonised the world, increased in power, and become a vast empire numbering 320,000,000 people. It is said—

> "That our own prosperity is not due to Free Trade, but the inventions of steam engines, railways, and other scientific discoveries."

Political economy is not one of the exact sciences. It is impossible to demonstrate that "Free Trade" is the cause of the rapid progress made since its adoption. There has been a great advance during the last fifty years. What is the main cause of this advance?

The earth has not changed materially, we have the same climate, land, and sea-board; every factor now enlisted into the service of mankind, though dormant, has been in existence for ages. The mind of man has not suddenly developed into a superior state; there has been no miraculous revelation. This age produces no minds greater than Shakespere, or Sir Isaac Newton, who lived, one 300 and the other 200 years since.

Dare advocates of protection say that a system of restriction and prohibition, or government by leading strings, which has existed for centuries, has had nothing to do with the general stagnation?

Least of all dare they say that at last such a policy has brought about the wonderful vitality of to-day? As Free Traders, we venture to affirm, until some better answer can be given, that this great change has been mainly brought about by the change from repression and prohibition to freedom; men have been in

bondage for centuries. Those who remember the state of bondage, in political, religious, and commercial matters, in which our people lived 50 years since will best know how to gauge the progress made in the path of freedom. Through great struggles and suffering men's minds have burst asunder the chains which have held them down and claimed their freedom, and have extended this freedom to millions of those who were in absolute slavery. Free Trade is but one branch of freedom. Freedom in political life, freedom in religious belief, have conferred great benefits on mankind, and freedom of exchange has its laurels. As About says, speaking of the old *régime*: "The whole people walked in leading strings, like a big child. Social order appeared to be founded on the principle that man when left to himself is incapable of acting properly. Now all men are free, free to work when and how they please—to produce, to consume, and to exchange at the price agreed upon—things and services of every kind."

In our time men are placed under responsibilities of the highest order, and the rewards of industry and research secured to them, culminating under a Free Trade *régime* in unnumbered inventions and discoveries producing articles of utility to man, such as could have scarcely been imagined by our ancestors.

But the most convincing argument, which shows that our success is not due to scientific discoveries alone, is to be found in the study of our Navigation Laws, and their effect on our shipping industry, and the opposite results in the United States, owing to restrictive laws, whilst equal conditions of scientific resources were alike available to each.

In one country with "Free Trade" there has been most remarkable expansion and growth, and in the other with "Protection" there has been contraction and decay; such varying results being brought about by the operation of legislative enactments.

Before the repeal of the Navigation Laws, no produce of Asia, Africa, or America could be imported into Great Britain except in British ships, navigated by a British subject, and having at least

three-fourths of their crews composed of British seamen; also higher duties on all goods imported from Europe than if they were imported in British ships.

After the secession of our American colonies, and they became an independent state, and as the result of such Navigation Laws, American ships sailing to Great Britain for goods came in ballast, and our ships sailing to the United States for goods sailed there in ballast, the consumer having to pay for this extravagant waste of freightage.

In 1849 all these restrictive Acts of the past protection era were repealed, and perfect freedom of navigation was established, there being no privileges enjoyed by British ships which are not equally enjoyed by all nations; goods may now be imported from any part of the world in the vessels of any country. The brief mention of this repeal gives no idea of the immense labour involved by those reformers who brought it about. You may be sure that it was prophesied and believed by many that it meant the destruction of the wooden walls of old England and our reduction to the rank of a third-rate power. But what has been the result? In 1840 the tonnage of vessels entered and cleared at British ports was 6,490,000 tons. For the year ending 1885 it was 46,389,000 tons, or an increase of 614 per cent. Meanwhile, what has become of the shipping trade of the United States, especially in its competition with British shipping.

Mr. Gladstone says that in his boyhood days, spent at the mouth of the Mersey, he used to see the beautiful American liners, which had the bulk and pick of the trade between the two countries. The Americans were deemed to be so entirely superior to us in shipbuilding and navigation that they had four-fifths of the whole trade between the two countries in their hands, and that four-fifths was the best of the trade, the dregs being left to us. What is the case now, after the operation of Free Trade on the one hand, and restriction on the other? The scales are exactly reversed; and instead of America doing four-fifths, and that the best, we now do the four-fifths, and let the Americans pick up the dregs. Of the

total exports and imports of the United States in 1884-5 only 14·61 per cent were carried in vessels belonging to their own nation.

Is it possible to find a case so indisputably leading to the conclusion that Free Trade, and consequently the severest competition, has been beneficent in its operation, leading to increased wealth, activity, and life, whilst protection—sad misnomer—has led to poverty, stagnation, and decay, notwithstanding all the scientific discoveries of the age. In the United States, nearly every article required in the building of a ship has been taxed, until American shipping has been taxed out of existence; clearly showing that it is possible to live in the full presence of the most modern scientific inventions and yet so to fetter the human agent through whose instrumentality alone they can be useful as to render them of little avail in the service of mankind.

Adam Smith says: "When the capital stock of any country is increased to such a degree that it cannot be all employed in supplying the consumption and supporting the productive labour of that particular country, the surplus part of it naturally disgorges itself into the carrying trade, and is employed in performing the same offices to other countries. The carrying trade is the natural effect and symptom of great wealth."

The following statistics of tonnage, considered in the light of such a statement, must be of great interest in showing the high position we have attained in the carrying trade of the world.

Let us examine these statistics of tonnage, and one year's work in carrying imports and exports in connection with the fifteen European States enumerated, and the United States of America. It will be seen that with our 35,000,000 of population, we have a tonnage of 7,209,000 tons of vessels engaged in the foreign trade, leaving out river steamers. Only 785,000 tons less than the other fourteen European States combined, with a population of 313,390,000.

We have nearly six times the tonnage of the United States, with less than three-fourths of population, and in comparing our foreign trade with the foreign trade done by other countries, we

have most astonishing results. Our total for the last fiscal year of which the returns are available shows a turnover of nearly £700,000,000. About £2,500,000 more than France, Germany,

No. 1.—Statistics of Fifteen European States, and United States of America.

Population, Imports, Exports, and Tonnage of Vessels owned by each, and engaged in Foreign Trade.

	Last Census.	Population.	Fiscal Year.	Imports and Exports of Merchandise, Including Bullion.			Excess of Imports.	Excess of Exports.	Shipping Tonnage of Vessels belonging to each Nation.
				Imports.	Exports.	Total Imports and Exports.			
		In Thousands.		In Thousands. £	In Thousands. £	In Thousands. £	In Thousands. £	In Thousands. £	In Thousands. Tons.
Austria-Hungary	1880	37,741	1883	49,992	59,992	109,984	...	10,000	324
Belgium	1880	5,520	1884	62,848	54,129	116,977	8,719	...	91
Denmark	1880	2,096	1883	16,157	11,182	27,339	4,975	...	264
France	1881	37,405	1885	181,036	134,040	315,076	46,996	...	1,034
Germany	1880	45,194	1884	176,425	162,900	339,325	13,525	...	1,294
Greece	1879	1,979	1884	5,453	3,773	9,226	1,680	...	273
Italy	1878	28,453	1884	54,074	43,936	98,010	10,138	...	971
Netherlands	1880	4,061	1884	78,912	51,694	*130,606	27,218	...	372
Portugal	1878	4,550	1884	7,854	5,859	13,713	1,995	...	97
Russia	1880	98,356	1884	57,684	70,253	127,937	...	12,569	625
Spain	1877	16,626	1884	35,738	28,779	64,517	6,959	...	509
Sweden	1881	4,566	1884	12,768	14,105	26,873	...	1,337	520
Norway	1876	1,807	1884	10,530	3,274	13,804	7,256	...	1,547
Turkey	est'd	25,036	1885	17,455	11,654	29,109	5,801	...	73
Totals		313,390		766,926	655,570	1,422,496	135,262	23,906	7,994
United Kingdom	1881	35,247	1885	393,778	293,187	686,965	100,590	...	7,209
United States	1880	50,156	1885	124,154	156,881	281,035	...	32,727	1,277

* Largely transit trade for supplying the interior part of the Continent.

and Turkey combined, with 107,635,000 population, against our 35,000,000. Leaving out France, Germany, and the Netherlands, we have eleven remaining European States, with a population of

226,000,000, a foreign trade of £637,500,000; £48,000,000 less than our own. No nation, whatever her population, has half as much foreign trade as we have. Germany is the nearest in amount, with 10,000,000—more people. Her total foreign trade is £345,661,000 less than our own. The United States, with all her vast resources and large population, is £405,000,000 behind us in the race.

It is a very common objection—

> "That by throwing open our ports we have conceded everything, and have nothing left to offer in order to get better terms for our goods which the foreigner refuses to take, whilst at the same time he is flooding our markets with cheap commodities which ought to be produced by our own operatives."

It is true we have nothing left to truck with, but this does not prove we have acted unwisely. Necessity has compelled us in this densely-populated island to open our ports and permit the free entry of food.

In common fairness to the home producer of food it follows that he also should be dealt with on the same equitable terms, and allowed free import of commodities. We could not temporise; it would be foolish to talk of waiting for better terms to starving people, keeping them out of absolute necessities in order to benefit a class.

On a question of so much importance, whatever advantage might be got in some byepath off the great high road of commerce, such a policy is at best a peddling policy, unworthy a great Free Trade nation like England.

It is a common error to believe foreigners flood our markets with goods whether we want them or not. The fact is, commodities are sent to us because there is a demand for them; they are wanted, and as a rule are bought by our merchants in the countries from where they are shipped. Instead of commodities sent to us injuring our own operatives, they are benefits to them. Commodities are paid for with commodities. The greater quantity

sent out, the greater quantity to be returned. A country having nothing to export will have no imports. Nothing for nothing. There is no exception to this rule.

England receives many millions sterling worth of commodities more than she sends out, but in spite of her wealth abroad and at home this condition would soon come to an end if she ceased to create new wealth by new productions. This excess of imports not only represents the year's exports but includes payment in kind for services rendered, such as carrying commodities, and interest on money lent at some former period. Other nations have £50,000,000 yearly to pay us for carrying their productions to our shores and countries abroad. This payment must be made in commodities, bullion, or specie.

When our imports fall away, unless it can be shown that we are lending to foreign nations, our exports will soon follow the same course, to the certain injury of our producing class.

Our operatives may suffer from many causes. There is and always will be distress and disaster of some kind in store for all, it is our common lot; but the distress of honest poverty, willing but unable to get work, will never be aggravated by allowing commerce to be free. It has already alleviated this form of suffering and made it less possible. Free Trade never promised to do everything necessary to regenerate men; it is one agency, most potential in its character, amongst many.

Until we have perfect men, there will always be some out of work, it may be through accident, their own, or somebody else's folly.

Many workmen act as though it was the duty of the State to find them work when out of employment; if it is, it must be equally the duty of the State to find other classes work under conditions of disaster equally beyond their immediate control. Almost every avenue of labour in its turn is overstocked in a densely populated country.

Professional men sometimes are as near starvation as artizans, and less able to bear it; yet no one thinks the State should find

them something to do at the public expense, or thinks of blaming "Free Trade." The objector may fairly say this is a digression, that his case is this: "Our own people are idle who could produce what we are buying from the foreigner."

Let us ask how many such unemployed workmen there are in any particular industry beyond the number which will always be incidental to an imperfect state of society, when rid of the thriftless, idle, intemperate, ne'er-do-well sort, and that very large section of hereditary tramps who swarm our cities in winter and boast of never having robbed a man of a day's work in their lives.

When all these are weeded out—and it must be remembered they make the loudest complaints—there will be found comparatively few, in proportion to the population, who could fairly be put on any new industry or absorbed by present employments. It is, in most cases, a question of price. Many an unemployed artizan could find work at once by accepting a reduced wage. This self-imposed idleness in order to keep up a trade standard carries a self-imposed penalty which neither charity nor rates should lessen.

But whether these unemployed are few or many, sound political economy says you have no right to compel a portion of the community to pay them more for some commodity which can be bought cheaper elsewhere.

In addition to having no right, the practice would end in general corruption of the body politic; all in turn would claim and have an equal right to the same help.

It is often urged that it is better to find our own people work, instead of foreigners, even if we pay more for the service. That they are better so employed than being kept in idleness. The plan generally proposed in order to accomplish this is the old notion of protecting some industry at home which is carried on cheaper abroad. But where is the line to be drawn? All producers have an equal right, and will claim it. Suppose the plan adopted. What is it that has really been accomplished? To serve as an illustration, say a duty has been put on imported silk manufactures in order to find occupation for the home operative at

present idle. At the public cost he has been found employment to produce an article which can be produced better and cheaper abroad. The foreigner, selling us something which he could produce cheapest, took in return some commodity which our workmen could produce cheapest. But as we ceased to take his goods he in return would cease taking ours. Our legislature would have inflicted an undeserved blow to the labour of those able to stand alone, and working under the most economical conditions, in order to establish labour, State aided as really as if a rate were levied for the purpose. Seeing this unfortunate termination, is the State to take up the disfranchised labourer whom it has injured, or leave him to do the best he can? Unless the State is going to take all alike under its "protection," and go back to the "leading string age," would it not be better at once to leave the unemployed silk weaver to gravitate, through stern discipline it may be, to that employment where his abilities will be best employed for his own and the nation's welfare, than attempt functions of government which, however plausible to the ear, have over and over again been fraught with misery to the very people they were intended to benefit.

To displace labour already engaged in producing economically, by labour under more costly conditions, is not in accordance with the conduct of any producer or merchant. It may be charity, and should be called by that name; it is not trade. Each has its sphere of operation; it is not wise to confound them. Some of our keenest merchants are at the same time our most philanthropic citizens. The whole question hangs on drawing the line at the word foreigner. And those who argue for his exclusion never dream of saying to an operative in Oldham, "You must not buy goods in Manchester because they are cheaper; if you do, you inflict great injury on your own town's people, whom you ought to cherish even if you have to pay more for your goods. You have no business to support another man in another town to the detriment of your own townsman who has to pay rates and taxes." If such conduct would be ridiculous applied to

inter-trade between town and town, county and county, or as in the United States, between State and State, is it not equally ridiculous between nation and nation?

It is a popular form of objection—

> "That the foreign producer who sends goods to our shores pays nothing towards our taxes. That he can be made to pay towards taxes levied in this country."

One of our merchants has said that a trade of £110,000,000 is carried on between England and protected countries, which would yield some millions sterling to our Government if they were allowed to impose an import tax, and make the merchant or producer abroad pay it, the commodity being no dearer to the consumer. If practicable, such a plan is certainly making a foreign merchant pay our taxes.

It is said, the seller is obliged to send his goods here, and could not therefore get any more for them.

But if this simple statement meets all the considerations involved, then it is equally true when applied to us. If any nation is "obliged" to send to us its surplus food production, it is an equal, if not a greater, necessity for us to send out our surplus manufactures in order to get possession of the food, which if it fails in coming, will mean starvation to millions. Food at any rate is the first necessity of life. In 1885 we imported food to the value of £139,443,000.

Cannot this rule of taxation be made to tell most heavily against ourselves by the foreigner, seeing our helpless and dependent position for food, which we are "obliged" to have at any cost? The obligation of exchange is common to all; it is part of our nature, it has scarcely any limits. The acquisition of one stage is but the basis for further desires.

Man's wants increase with each gratified advance in social status, and the consequent production and exchange of commodities has unbounded limits.

Those who propound the theory of "being obliged" seem to have confused ideas that the varying conditions of production in

different foreign countries may be turned to our advantage by this new plan of taxation. In the main we have nothing to do with these varying conditions in other countries. One producer may have twice as much as another to pay for carriage before landing his wheat in Liverpool. But that does not help him to get a farthing more for his wheat, no more is his competitor induced to take less than the market price because his carriage has only cost half as much. One may make a larger profit than another, or a loss, but that is no immediate concern of the buyer; with him it is simply a question of supply and demand, and he may be trusted in his shrewdness and business capacity to pay no more than the state of the market justifies.

But this proposal to levy a tax upon the foreign producer is equal to saying that in Free Trade England, where it cannot be denied competition is keenest, as all nations have here an open market, and compete with each other for our trade, the buying is so badly managed by the merchants dealing with those protected countries, that there is margin enough left for our Government to step between and get the foreign merchant to either send us in future considerably more commodities for the same quantity in return, or to send us the same commodities as before and take less from us in return.

Again let us return to our former illustration of goods bought in Manchester and taken or sent to Oldham. Can any plan be shown by which the Manchester merchant can be made to pay rates in Oldham as well as in Manchester? There is something ludierously absurd in believing that we can make a foreign resident in another country pay towards our taxes. After the goods are delivered here to our order, we deal with them, haul them on our roads and railways, store them in our warehouses, or distribute them as we choose. He does not use our streets, our railways, our police, our army and navy, nor is he governed by our Government; how then can he be made to pay for services which have not been rendered to him, except by his own Government, and by whom alone he can be taxed, and to whom he is made to pay?

It must also be self-evident that if a foreigner can be made to pay our taxes, we also are foreigners in our turn, and with a much greater foreign trade, can be made to pay much more in return.

No tax can be levied on any commodity without such tax entering into the question of cost just as much as if it were the first cost of wages to the producer. The cost of any article, in addition to some margin of profit, is paid by the consumer. Trade without these conditions dies.

It is one of the most common objections—

"That we have to pay for our heavy and excessive imports with money, and we yearly get poorer."

It is certain that we have to pay for everything we purchase, but not necessarily with our money. When we have no commodities to give in exchange, our money will soon be exhausted if we continue importing.

There are no signs of this taking place. Wealth is made every day by the day's labour; there are no indications of our people being less industrious and thrifty; the indications are towards further improvement. It must be remembered that every time we buy we also sell; we cannot buy without giving something in exchange. Every transaction is an exchange, and practically an exchange of commodities, not of money. Every article imported is sent because some one wants it, and one great measure of our wealth is the fact that there is scarcely a commodity produced in any quarter of the globe, however distant, which does not find its way to our shores, and is purchased by our people in such plenty as could not possibly fall to the lot of kings a century ago. It is necessary that our working men should consider this question of exchange.

Owing to the great division of labour, whereby one man, instead of trying imperfectly to produce everything he requires, now produces one thing well, but with that one commodity, his only production, he can secure for himself in exchange a thousand commodities produced by a thousand different producers, many of them being brought for his use from the remotest parts of the

earth. Let him look round his parlour, and as he looks at his piano (parlours and pianos are quite common to working men now-a-days), think for a moment of the hundreds of productive operations he has beneficently set on foot when he exchanged a portion of his labours for that piano. In its construction there is wood, iron, brass, lead, leather, cloth, silk, ivory, &c. Every one of these commodities has a separate history. One will serve hastily to illustrate. Take the last item mentioned, "ivory." From the elephant hunter, merchant, shipper, the hundred different trades employed in furnishing the ship, the sailors who manned it, insurance agents, the railways which carried the ivory, those who made the railways, the turner, polisher, builder, who finally placed it in the piano. What a host of producers.

As trade and science expand there is no limit to the production of and demand for useful commodities. This is the trade of the world—commodity for commodity. Our people have worked hard at the special productions in which they have excelled, and in return for the vast number and variety of goods produced over and above home demands, have sent out and received in exchange increased imports representing vast sums of wealth, being not only profits on the present labour engaged, but profits arising from savings of labour rendered in the past. This excess of imports, instead of being a source and sign of decay, is a true indication of progress and increased wealth. From the working of a private business to the aggregate working of a nation there must be more coming in than going out if there is progress.

In the statistical tables on page 50 are shown the exports and imports of Great Britain since 1860; they afford no evidence of decay, but of continued growth. Up to the end of 1885 it will be seen that we have received £2,077,212,000 more than we have sent away, and that instead of having paid for this excess with our money, we have during the same period imported gold and silver bullion and specie, £80,216,000 more than we have sent out. Without going into the analysis and true understanding of the various details of our trade in different years, and the varying

TOTAL REAL VALUE OF IMPORTS AND EXPORTS OF MERCHANDISE AND BULLION AND SPECIE INTO AND FROM THE UNITED KINGDOM FROM 1860 TO 1885.
IN THOUSANDS OF POUNDS.

Year.	MERCHANDISE.					BULLION AND SPECIE.					Total Value of Merchandise, Bullion, and Specie.	Income Tax, G. Britain, amount of property, &c., assessed to, in millions.	Education, G. Br., avge. atten. of schol.s in State-aided schools, in t.sands.	Paupers, No. in receipt of relief, U. Kingdom, in thousands.	Sav. Bnks. Amount of deposits at end of each year, U. K., in millions.	Consumption per head of population.		
	Import.	Export.	Total Import and Export.	Excess Import.	Excess Export.	Import.	Export.	Total Import and Export.	Excess Import.	Excess Export.						Tea.	Sugar.	Wheat and Flour.
	£	£	£	£		£	£	£	£	£	£	£				Lbs.	Lbs.	Lbs.
1860	210,531	164,521	375,052	46,010	....	22,979	25,535	48,514	....	2,556	423,566	312	881	1,010	413	2·7	34·1	119
1861	217,485	159,632	377,117	57,853	....	18,747	20,811	39,558	....	2,064	416,675	313	920	1,058	415	2·7	35·5	135
1862	225,717	166,168	391,885	59,549	....	31,656	29,326	60,982	2,330	....	452,867	328	965	1,058	423	2·7	36·0	135
1863	248,019	196,902	445,821	52,017	....	20,031	26,544	56,575	3,487	....	502,396	335	1,009	1,329	413	2·9	36·9	112
1864	274,962	212,620	487,572	62,332	....	27,728	23,132	50,860	4,596	....	538,432	347	1,011	1,498	445	3·0	36·8	104
1865	271,072	218,832	489,904	52,240	....	21,462	15,092	36,554	6,370	....	526,458	371	1,058	1,162	453	3·3	39·8	93
1866	295,290	238,906	534,196	56,384	....	34,387	22,039	56,426	11,648	....	590,122	388	1,082	1,105	474	3·4	41·2	105
1867	275,183	225,803	500,986	49,380	....	28,821	14,324	43,145	14,497	....	544,131	398	1,117	1,149	463	3·7	43·2	140
1868	294,691	227,015	521,706	67,676	....	34,853	20,220	55,073	4,633	....	576,779	404	1,242	1,237	485	3·5	42·0	130
1869	295,461	237,085	532,476	58,446	....	26,301	16,377	42,678	4,124	....	575,154	409	1,383	1,243	514	3·6	42·6	156
1870	303,257	244,081	547,338	59,176	....	28,456	18,920	48,376	10,536	....	595,714	419	1,454	1,279	534	3·8	47·2	123
1871	331,015	283,575	614,590	47,440	....	38,140	33,760	71,900	4,380	....	686,490	440	1,547	1,280	558	3·9	46·8	151
1872	354,094	314,589	668,683	40,105	....	30,608	30,336	60,944	....	728	729,227	466	1,651	1,171	599	4·0	47·4	103
1873	371,287	311,005	682,292	60,282	....	33,699	28,899	62,598	4,700	....	744,790	486	1,784	1,079	641	4·1	51·6	171
1874	370,083	297,650	667,733	72,433	....	30,379	22,584	52,963	7,795	....	720,696	515	1,985	1,015	646	4·2	56·4	162
1875	373,940	281,612	655,552	92,328	....	33,265	27,028	60,293	5,647	....	716,445	536	2,176	998	676	4·4	62·9	197
1876	375,155	256,777	631,932	118,378	....	37,054	20,464	66,518	7,590	....	698,450	544	2,340	926	703	4·5	59·0	168
1877	394,420	252,346	646,766	142,074	....	37,163	39,798	76,961	....	2,635	723,727	535	2,511	903	730	4·5	65·0	203
1878	368,771	245,484	614,255	123,287	....	32,421	26,687	59,108	5,734	....	673,363	542	2,782	923	744	4·7	58·8	188
1879	362,992	248,783	611,775	114,209	....	24,156	28,585	52,741	....	4,429	664,516	542	2,980	960	758	4·7	66·2	229
1880	411,230	286,414	697,644	124,816	....	16,254	18,890	35,144	....	2,636	732,788	541	3,156	1,037	777	4·6	63·7	210
1881	397,022	297,083	694,105	99,939	....	16,864	22,503	39,367	....	5,639	733,472	549	3,274	1,011	803	4·6	67·4	217
1882	413,020	306,661	719,681	106,359	....	25,049	20,989	44,038	2,030	....	761,389	565	3,436	1,006	837	4·7	70·5	241
1883	426,892	305,457	732,349	121,435	....	17,224	16,414	33,638	810	....	765,967	576	3,560	1,008	858	4·8	71·7	251
1884	390,019	295,968	685,987	94,051	....	20,378	21,999	42,377	....	1,621	728,364	592	3,721	974	906	4·9	72·2	190
1885	370,968	271,404	642,372	99,564	....	22,810	21,783	44,593	1,927	....	685,965	595	3,897	982	919	5·0	74·2	236
	8,624,069	6,546,857	15,170,926	2,077,212		703,455	623,239	1,326,694	102,521	22,308	16,497,620							

success, some years being more profitable than others, it must be evident to the most uninitiated, that unless we have had these imports on unprecedented credit, and still owe for them, we have done a most gigantic and profitable trade with the outside world, such as no nation has ever yet recorded in present or past history.

It is often urged—

> "That cheapness and wealth of commodities is of no consequence to the working man, if he has no money to purchase them."

There is a fallacy in this. Cheapness and plenty are of great consequence, even to the man who has no money to buy with. If he has no money himself, he is more likely to get the article from some one who has, if it is plentiful and cheap, than if it is scarce and dear. It is a small matter to give a man a penny, but with that penny the poor man can buy double the quantity, if things are cheap. With plenty there is likely to be less suffering and less chance of the poor being neglected, than with scarcity. The poor and unfortunate cannot be kept out of participation in the general prosperity.

That mischievous and ignorant faction who magnify the present difficulties of the poor, and look back to the good old times of the past with regret, is very much to blame. Unless history is a huge lie, we should be profoundly thankful that we live in the present age. Macaulay says the paupers and beggars in 1696 numbered 1,330,000, out of a population of 5,500,000. We have not three-fourths of that number to-day with seven times the population. "Farmers and shopkeepers breakfasted on loaves the very sight of which would raise a riot in a modern workhouse, and men died faster in the purest country air than they now die in the most pestilential lanes of our towns."

It is better for a poor man to be living amongst a wealthy community than where everybody like himself is poor. The peasantry of Ireland suffer because they are all too much alike, poor. There will always be poor men without money to buy with, unless there

is going to be an equal possession of habits of industry and thrift. Dear commodities mean dear labour and less demand for either, and consequent aggravation of the poor man's trouble.

Many objectors to Free Trade say—

> "That a duty of 5s. per quarter on corn is necessary in order to remedy a decaying agriculture."

Different reasons are urged for this duty, varying with the character of the audience to whom it is proposed. To the farmer it is said the duty would enable him to get a higher price for his corn, whilst the operative is told he would not have to pay any more for his loaf, as the importer is "obliged" to send his wheat here, and would pay the duty himself.

One of our present Lancashire members of Parliament says the working man would gladly pay this duty, as it would only raise the price ½d. upon a quartern loaf, say 6d. a week where twelve loaves are consumed, but more than ten times this amount would be returned in increased wages.

As we have shown in a former part of this paper, such duty would inevitably raise the price to the consumer. The statement that benefits would follow this movement is made with about as much knowledge of the subject as that shown by people who in times of trade depression imagine that "all that is wanted is confidence," and if somebody would only make a start and go round the market buying considerably, "confidence" would be established, and trade improve.

A working man paying this 6d. extra for his bread would never get it back again.

This movement is damned at the start. It is equal to a reduction of wages to begin with. The 6d. is left at the bread shop instead of the mill.

Taking the average yearly consumption of grain in the United Kingdom at one quarter per head, and the population at 36,000,000, the tax would realise £9,000,000. By what practical scheme, fairly set down in writing, can anyone show that this £9,000,000 once paid, would ever come back to the mass of the

people who paid it? Suppose £6,000,000 of this tax was paid to Government on the imported portion, and at once invested in Consols, without charging anything for cost of collecting, it would only realise £180,000 per annum.

But suppose it was invested at 5 per cent, a thing impossible, it would only realise £300,000, or 10½d. per year interest returned to the family man who consumed 12 loaves per week. But it is not the function of Government to raise money by taxes for purposes of investment, but to spend. Under the most economical plan conceivable the utmost that Government could do would be at once to give it back again as near nett as possible in the shape of reduced taxation. Now what reduction of tax would be more beneficial to the working man than the tax just put on his daily bread? Any other reduction would in all probability benefit another class more than himself, and his bread tax would have helped to pay it.

But there is still a chance of benefit for the working man in the return he might receive from the £3,000,000 paid to the home producer.

It is impossible to tell how much of this sum would go directly into the landlord's pocket in the shape of advanced rents exacted from the farmer, or, in the light of past experience under the Corn Law *régime*, how little would go into the pockets of the farmer and agricultural labourer, and by that means enable them to inaugurate an improvement in trade, by buying manufactured commodities with the producer's own money advanced for the purpose, and only returned on condition of receiving a *quid pro quo*. As one thinks of this grand scheme, it seems analogous to a number of shopkeepers appointing a highly-paid official to collect money from themselves in order to give it to people generally in the town, so that they may if they choose come back with it and buy goods from them in order to improve trade.

In the whole process no creation of wealth would have taken place, the tendency being to restrict its growth by the protection adopted; crippled industries causing high prices, lessened consumption, and reduced demand for commodities in exchange.

Is it not better advice to the working man to tell him to keep his sixpence from the tax collector, and take it to the savings bank or co-operative store? At any rate not to invest it in any bogus notions of Fair Trade advocates.

The next is the last objection noticeable:—

"That retaliation is necessary if we are ever to get better terms from the foreigner."

This plan of retaliation—to tax foreign manufacturers in order to make them untax our manufacturers—will be seen at once to be capable of only a limited application. We could not tax food or raw materials. We are limited to taxing manufactures produced abroad; but our field of operation here is very limited. In going over the Statistical Abstract, our exports of manufactures seem to be about five times greater than our imports, so that the foreigner's power of retaliation and injury to us would be five times greater than ours. This represents rather an unequal fight, which requires most prudent and careful examination before we engage in it. He would be a poor general who did not look at his opponent's position. Fair Traders should go abroad and see how this question looks from the other side. As Mr. Gladstone puts it, the retaliation proposal is a perversion of the Christian precept which says, "If a man strikes you on one cheek, you should turn to him the other also;" as it proposes, "If somebody smites you on one cheek, you should smite yourself on the other side also." This is really what must happen if any system of retaliation is carried out. By what equitable right can a State deliberately inflict injury on one portion of her people in order, if successful, to benefit another portion? One immediate and certain effect of retaliation would be to compel one portion of the community to buy dearer and worse goods in order that another portion might be benefited. France refuses to take our cotton goods, consequently a market is lost to cotton manufacturers. But if I am engaged in buying French silks, and doing a nice profitable trade, by what right do you mix up my interest with the cotton industry, and thus by taxing French silks spoil my trade and living in order

to benefit the cotton producer? It is no excuse to tell me silk is a luxury. The injustice is the same whatever articles are used to serve as an illustration. The excuse about finding people occupation is at least unsound.

It is not the practice of Government to find people occupation, much less to tax one portion in order to do it, and call it trade instead of pauperism. All the evils of protection are involved in the plan. At the public expense a portion of the people are removed from healthy competition and engaged in producing that for which they are not best adapted; stimulus to improved machinery is removed, and instead of the tendency being to cheapen commodities, dearer production is the result. Fair Traders should never lose sight of this proposition as an inevitable sequence—that whenever we cease to be able to produce cheaper manufactures than other nations our decline is certain.

A cotton famine was an awful reality. A customer famine would be worse still.

But let us follow the consequences of retaliation in French silks. There can be no doubt that, fostered by the tax, a large increase of home manufactures would follow. Now suppose the French gave in to our request and granted, in course of time, the terms asked for the cotton manufacturer, what would become of the extended silk production at home when, no longer protected, it had to stand the fierce competition of French producers? They would have been deliberately led on to ruin. The sadness of their loss would be greater, and cause more social friction than would be compensated for by the cotton operatives' gain. To a thorough Free Trader retaliation is a most undignified and impolitic procedure. It is reactionary, and would damage us by its inconsistency. When does a sincere believer in a just cause relax his efforts and adopt error because of his impatience in the progress of truth? If we are right, what have we to do with the errors of others, except to avoid them?

As Mongredien says, "Will abandoning principles extend them?" Retaliation is a clumsy and uncertain weapon. It lets the injury

fall on the wrong people, and not on those who have invoked its use, and will receive benefit from its operation.

It takes the user of silk or the wine drinker, and says, "You must pay more for your silk or wine in order to benefit the producer of cotton goods."

Such a course is utterly opposed to the principles of a Free Trade country, which cannot be put on to-day and off to-morrow, in order to secure some temporary bargain with a foolish customer. Nothing has been said about the possibility of "retaliation" producing "retaliation" in return. Our position in such a case would be worse instead of better. If retaliation should be attempted anywhere, surely we should begin at home, and retaliate on our own colonies, our own children, who at least ought to treat us better. But would this bring about "Imperial Federation," or would it not have a tendency at once to precipitate separation?

What strange inconsistencies meet us in a study of this question. The United States of America, protectionist to all outside nations, yet owing largely their unity and peace to the fact that they have perfect inter-state freedom of trade, whilst Free Trade England, instead of unity in the empire, has permitted the widest divergence of trade policy in her colonies.

MANCHESTER STATISTICAL SOCIETY.

The Social Aspects of Co-operation.

By E. Vansittart Neale.

Read March 9th, 1887.

I do not propose to occupy your time to-night with statistical details of the rise and progress of Co-operative Societies, either in Great Britain or in other countries, during the last half century, which has seen the commencement of all the attempts of this nature that can lay claim to a character of apparent permanence.

Statistics of this class are of value mainly to arouse attention—to produce a conviction that the matters to which they relate have proved themselves to deserve serious consideration by the number, extent, and magnitude of the persons, areas, or transactions concerned in or affected by them. But, from the nature of the invitation given to me, I conceive that it proceeds from those who are already alive to the importance of what I may call the Co-operative movement, and therefore do not require to be constrained to attention by serried battalions of figures, but, conceding the positions which such an array of numbers is often brought up to defend, or carry, ask, What are the aims; what is the character of this new power? What place may we expect it to assume in our existing social state? In what way, and with what prospect of success does it seek to modify that state? What, in short, is Co-operation, regarded from its social aspects?

To give to this question an answer which shall be, what I think you desire, a true expression of my own belief, I must ask you to accompany me to a matter apparently widely removed from my subject, namely, to the conceptions generally accepted at the present day by scientific thinkers, as to the process by which the earth that we inhabit has come to be what we find it. The process has been summed up by an eminent philosopher, Mr. Herbert Spencer, in one word—"Differentiation;" that is to say, a process by which, in the order of nature, the infinitely varied forms of existence, among which we live and on which our powers of action depend, have come into their present distinction, from states of apparent oneness, in which they were once merged—the gaseous being differentiated into gases, liquids, and solids; the solids and liquids differentiated into land and water; the once lifeless areas of land and water becoming peopled by forms of living beings; these becoming distinguished into fixed and self-moving—the vegetable and animal—while the animal have not only been differentiated into endlessly varied forms of creatures, distinguished by powers of movement adapted to the variety of their surroundings—creeping, swimming, flying, climbing, jumping, running, and walking creatures—but, accompanying these varieties of form, have manifested varieties of intelligence, culminating in the faculty which man alone, among these manifold hosts of living beings, manifests, on this planet—the faculty of *reason*.

Now with this faculty of reason, there appears to me to have set in a process the converse and complement of that which I have endeavoured to outline, a process of "Integration." Nature has proceeded by a continual differentiation of the one into the many. Man, in the exercise of reason, has been engaged in a constant effort to re-combine the many into the one.

I say in the exercise of reason, because man, as a mere natural being—*i.e.*, a being urged to action, like other natural beings, by desires and passions which he does not control, but seeks only to satisfy—is, like all other natural beings, engaged in a continual

struggle, with no approach to unity essentially different from that manifested by other animals, whom sexual impulses, family ties, or the instincts of mutual protection draw together into more or less permanent associations. But in man, as we now find him or are able to trace his history upon the earth, tendencies to union quite distinct from these natural impulses everywhere show themselves. In all countries that have risen above the natural level of barbaric struggle, we find laws or institutions with the object—in all cases so to limit the actions of individuals, or groups of individuals, that they shall conform to the rules of what we call justice; which the great philosopher, Plato, identifies with the commercial maxim, a place for every thing, and every thing in its place; so that no one shall rudely and violently interfere with the activity of other men, but all shall be governed by a respect for their agreements—and, in some cases, with the further object of training men to some modes of action, by which the welfare of the whole body subject to these laws and institutions may be as far as possible secured. Modern legislation, at least until a very recent period, has been pretty well confined to the first of these objects. The protection of life and property, and in some cases of property, at the cost of life, has been their dominant, often their sole object. But among the nations of the ancient world, especially among those great leaders of human thought, the Hellenes, the case was different. The legislators, whose names stand out as the fathers of Greek civilization, Lycurgus, Pythagoras, Solon, &c., all made the education of the citizens of the little states for which they legislated their first care. The whole was to each of those lawgivers more important than the parts. The first object of the legislator, as they conceived it, was to mould the lives of those for whom he legislated so that their collective action should be directed to the general good, and that no one should be able to twist aside for his private advantage what ought to promote the welfare of all the members of the State.

The celebrated Republic, in which the genius of Plato presented to mankind his ideal of a perfect state, is to us the abiding witness of the importance attached by Greek philosophy to this social training of the citizen. Allow me to appeal to it as an evidence, not of the particular regulations by which Reason may accomplish that great problem of integration which I hold to be before her, but of the fact that this is really the appointed task of reasonable will, towards which the development of human existence has been unconsciously directed, and in which alone the highest aspirations of humanity can find their satisfaction.

That this object was not attained in the ancient world we know. The fair promise of Greek autonomy, blighted by the intestine warfare of the Hellenic race between its many little states, withered up before the fierce blasts of arbitrary power to which it was exposed, first from the rise of the empire of Alexander the Great and his successors, and then from the absorbing ambition of Republican and Imperial Rome. But the external unity established through the growth of Roman might, when it had become consolidated under the dynasties of the Cæsars, prepared the way for the manifestation of a principle stronger than any bond of political union, more essentially expressive of the integrating action of reason than any form of citizenship—the principle of voluntary action, designedly directed to seek its own welfare in the good that it can do to others—the principle which in modern times has been called "Altruism," but in former days was known by the familiar name of *Love*. "Thou shalt love thy neighbour as thyself." "Now abide Trust, Hope, Love, these three, and the greatest of these is Love." Utterances such as these, so commonplace to us that we cease seriously to consider what they involve to any persons who really strive to act upon them, became with the rise and spread of the Christian Church the avowed maxims of unions of men, who by degrees drew into this voluntary fellowship the masses of the population; and in the face of the determined opposition of all that was most influential,

by wealth, rank, and culture in the Roman world, achieved the triumph of a faith where "there was neither Greek nor Jew, barbarian, Scythian, bond nor free," but all men were recognised in theory, as children of one Divine Father, members of one divinely-constituted body, and therefore "every one members one of another."

I have said, "in theory," for, as we all know, performance has hitherto limped after theory very slowly. We still usually go back in wondering admiration to the first three of our nearly nineteen Christian centuries, as the most striking proof of the power inherent in the faith which then made its appearance on the earth, and console ourselves for our own shortcomings by a feeble appeal to supposed miraculous intervention. But we forget that the Eastern world can point, in the growth of Buddhism, to a phenomenon not unlike the rise of Christianity in the West; with the difference—to borrow a saying of the late Baron Bunsen—that "Buddha gave up what Christ came to do," but agreeing in the witness borne by it to the supremacy of moral will; the profound depth of being displayed in that self-governing power which, in the individual man, integrates the discord of desires into harmony, and, in the group, the conflict of interests into concerted action for a common good.

Performance, as I have said, has crept very slowly and lamely after theory, in fulfilling the bright anticipations of a kingdom of righteousness to be set up on earth by the spread of the faith in Christ, which inspires the picturesque pages of the Book of Revelations. And yet the long roll of the centuries elapsed since the enraptured gaze of the seer of Patmos saw the city of God descending from the skies, have done much to facilitate the building up on the earth of a city which may fulfil in their most important parts the old prophetic anticipations. Slavery, that canker of ancient civilisation, has disappeared from the civilisation of Europe and North America, notwithstanding the differences of race which lent it there an artificial support—

and hand in hand with this disappearance of slavery, there has grown up a marvellous development of the integrating power of reason in its intellectual manifestation, by which men have been enabled to sum up the infinite multiplicity of natural phenomena under intelligible conceptions, and then by means of these conceptions to acquire such a mastery over natural powers that 1,000 men of the present day can do what it would have taken many tens of thousands to do of old; to say nothing of the facilities of locomotion, that no power whatever could have effected without the aid of the mechanical arrangements by which space almost slips out of our thoughts when we busy them about our movements.

Then, associated with this immense increase of the power to make work productive, possessed by this generation in comparison with former ages, there have grown up political organisations affording an amount of freedom to individual action, combined with a degree of security for the fruits of that action, and a facility for enforcing the performance of any agreement affecting it, which is certainly without precedent, at least for extent and completeness, in any former age.

Lastly, our accumulated experience of the effects of human institutions, and our increased knowledge of the universe, especially of the history of the earth, has, I believe, undermined, and promises gradually to destroy, two widely-spread beliefs antagonistic to the integrating work of reason in social reconstruction—1st. The belief that the welfare of mankind can be secured by political institutions; 2nd. The belief that the great duty of man while he lives on earth is to prepare for a life which will begin when he dies.

There is something fascinating, at first sight, about the idea that what is needed for the welfare of mankind is only an unrestricted power given to the mass of the population to make laws for themselves, and thus insure what is called the triumph of Democracy. It derives force from the great amount of injustice

and oppression under which large bodies of men have often groaned, from the arbitrary action of individuals or bodies who have acquired control over the organised strength of what we call the State. It follows also from what I have already said, that true self-government—the government by each individual of his own desires—their subordination to the integrating rule of reason—is the indispensable condition of real social progress. But the self-government of Democracy is a claim by some to govern, not themselves, but other people, by means of certain systems of voting and meetings, through which this power is to be exercised.

I have no intention to discuss the merits or demerits of this mode of making or administering laws, as compared with other modes that have existed or exist among mankind. But the last century has, I think, sufficiently proved, by the striking example of the Great Republic of the West—the United States of North America—that legislation emanating from the body of the people is as powerless to arrest the progress of social evils, as legislation emanating from any other source; for this sufficient reason, that law is essentially the expression of force, with its watchword "Thou shalt," or, more commonly, "Thou shalt not,"—while the social well-being of man must proceed from the inner life of the Reason, whose watchword is "Thou wilt."

Now this brings me to the second, and, in my opinion, the greatest actual hindrance to the growth on the earth of that kingdom of God, the kingdom of righteousness, good-will and peace which the New Testament presents to our imaginations, namely, the survival into our age of the overwhelming importance attached by men in the middle ages to the world into which they believed that they would pass on death. To those to whom the universe of Dante's "Divina Commedia" was a reality, of which they felt as fully assured as we are of the world which we construct in our imaginations from the materials supplied us by our senses, the prospect of the fearful torments, or endless joys, to which errors of belief would expose them, or that an orthodox

faith would secure, made all actions appear insignificant in comparison with those to which such overpowering consequences were attributed. But the faith of which the "Divina Commedia" is the expression rested on the belief in the infallibility of the Church. With the abandonment of this belief the foundation for it is gone. Of a world not present to our human faculties of perception we can have no knowledge, except from information conveyed to us by some one who has access to a knowledge which, since we have no means of testing it, we must either accept as absolutely true, or consign to the large company of unproved assertions. Obviously then, those who had thrown aside part of the teaching of the Church as erroneous, ought logically to have attached weight to so much only of those teachings as appealed to matters within the range of present experience. But the disposition to dogmatise dies hard. "New Presbyter," as Milton found, was but "old Priest writ large." The teachers who had rejected the infallibility of the Church set in its place an infallibility of their own, under the cover of interpreting the Bible; and continued to settle the fate of their hearers according to their supposed orthodoxy or un-orthodoxy, for the endless periods of a future life, as confidently as if they had never revolted against the authority of Rome. It seems to me impossible that this position shall hold out much longer against the assaults to which critical enquiry and scientific research have subjected its stronghold—the assumed infallibility of the Bible itself. Great as the value of this *resumé* of Jewish literature is, in my judgment at least, for the spiritual refreshment of mankind, it is, I think, becoming clear to all impartial enquirers that this value does not consist in its supplying to us unerring information either as to our own origin or our future destiny in an endless hereafter. Men will, I am persuaded, gradually come to the conviction that the supposed superiority of the modern Christian world to the world of Greece and Rome in its possession of this supernatural knowledge is a delusion; that we, like our ances-

tors, have no other foundation for our conclusions about the universe and ourselves than the records and experiences of the past, and the ascertainable phenomena of the present within and without ourselves.

Does it follow that we have no reasonable hope of producing a social order much higher in its aims and more satisfactory in its results, than the order developed in this ancient world? Far from it. The history of mankind has brought into evidence, as I have already argued, a force of which ancient Greece and Rome scarcely suspected the existence—the force of moral will exerted in free association. If to the Greeks we are indebted for the germs of that scientific thought which makes the universe intelligible to our conceptions, to the Jew we owe the affirmation of those undying principles of Trust, Hope, and Love, through which alone our scientific knowledge can become available for the general well-being of our race. The Old and the New Testament, in ceasing to be the objects of an unreasoning worship, will be only the more clearly felt to be the nursing mother of that spiritual life, through which the reason will complete her work of integration, by building up out of the present elements of society a higher social order, embodying in appropriate forms that principle of association of which what is now known as Co-operation is the first phase.

I proceed to examine this action. What I have already said points to its character, as I conceive it, and indicates its essential difference from the Red Radical Spectre of Socialism that, like the comets of old, "from its horrid hair shakes pestilence"—the moral pestilence of anarchy "and war." It is the difference on which I have already touched, between "thou shalt," and "thou wilt." Socialism would rectify social ills by force; disguised in legal forms if practicable; if not, then manifested in the naked brutality of physical might, sweeping away all the fences raised by modern civilisation around property, all the guards provided to secure the orderly exercise of liberty by assuring the sacredness of contract, in the hope that, out of the chaos, "a new created

world" will spring up spontaneously beneath the footsteps of humanity.

Of co-operative association, on the contrary, it is the essential character to be constructive, and, therefore, conservative. Human progress is to it the peaceful evolution of a higher life, resting on the past, though gradually transforming it into a nobler present by tranquil growth. The natural order of plant life, where the flower and the fruit are evolved from the leaf and the stem, is to this constructive conservatism a true type of the course of social life. For instance; Association takes the actual system of buying and selling, in its retail and its wholesale forms, and asks, Can we not by union change their direction, so that they may work uniformly for the general good, with a minimum of waste and a maximum of honest dealing; instead of working as they do now for the individual profit of a comparatively small body who waste a large part of the proceeds of their businesses in fierce struggles with each other for custom, and by their needless multiplication pervert ingenuity, from its proper function of being ever busy in devising ways to do better what it strives always to do well, into a ceaseless effort to obtain by fraud the gain lost by a delusive cheapness, and allure buyers, by the bait of "enormous sacrifices" to offer up themselves as victims?

Again, Association considers the enormous mass of wealth heaped up in the course of ages by productive industry, and asks, Can we not by wise union, provide that this ever-flowing source of riches, while it assures to the proprietors of the rolled-up labour, called capital, incomes with which these owners of capital will be contented if they are secure, shall build up for the masses of toilers concerned in this production, homes of modest comfort and growing refinement, resting on the profitable employment of that capital; and thus link, in permanent concord, the two elements of past and present work, whose discord now hangs over industry in an ever threatening cloud of strikes and lock-outs?

Once more; the spirit of Association contemplates what wealth

seeks for itself when it has attained the means, and considers whether these advantages may not be brought within reach of the poor, and how? Since it cannot place a palace at the separate command of every member of society, it asks whether by well combined arrangements, every man may not be brought within reach of the conveniences of a palace; its free air; its pleasing surroundings; its facilities for intercourse; its well planned interchange of services; its cleanliness and beauty; and evolves the conception of the associated home, of which the colleges of our own great universities may give us an idea, where all the resources of architecture may be applied to house, not merely, as now in Manchester, the things made by men, but the men who make them.

Let it not be said that such operations are impracticable, that they would demand, to begin, a population otherwise disposed than is our present population. That objection has been disproved by experience. In the distributive phase we have the proof in overwhelming amount at our doors. For the productive and domestic phases, where England at present affords us little more than hopeful prospects, we have but to cross the Channel to France, to see in the great foundry created by M. Godin, at Guise, known as the Familistère, an illustration on a large scale of a mode of dealing with profits, by which the workers are being constantly converted into capitalists, and guaranteed against the calamities of sickness and old age by the accumulation of the results of their own work, while they occupy, in common with the benevolent founder of this noble institution, a palace of associated homes. There, too, in addition to the advantages enumerated above, we shall find brought to the doors of the population an admirable system of schools, where from the earliest age to the full period of fourteen years their children receive under the eyes of their parents a training whose completeness may be estimated from the following facts. The charge for primary education in 1886 was per head in France, on a population of 37,000,000, 1s. 4¼d.; the amount in the United Kingdom, on a population of 35,000,000, was 2s. 9½d.;

but the charge for the population of 1,800 persons at the Familistère was 8s.;* while the balance-sheet for 1885-6 shows, besides this 8s. per head (£748) expended on the primary education of the population, two other sums appropriated for the benefit of the children under the age of four, when education in the primary schools begins, namely:—

For the Nurseries	£340	0	0
For the Mothers' Schools, 1st year	62	0	0
„ „ 2nd and 3rd years	92	0	0
Add. Primary School	742	0	0
Total spent on education of childhood ...	£1236	0	0

But the Familistère is only a manufactory, standing indeed on its own grounds, which make it impossible for any growth of the town of Guise, should it take to growing like many a town of Lancashire or Yorkshire, to deprive its inhabitants of the gardens and pleasure grounds to which they now have access; but still only a manufactory, whose population necessarily depend for the means of their support on the success of their manager in selling the articles they produce. There is a further step beyond this, of which the practicability is shown us, by a celebrated manufacturing establishment in an adjoining county—the creation of Sir Titus Salt. Sir Titus brought together at Saltaire, then nearly two miles from Bradford, the workers who had been scattered over six mills in that town, and purchased a considerable extent

* The figures for France are taken from a statement in *Le Devoir* (a weekly paper published by M. Godin) of Feb. 6th, 1887. Those for the United Kingdom are taken from the Budget for 1885-6, applied to the Census of 1881. They give, therefore, an average too high for the public grant, but too low if the large additional sums voluntarily contributed are taken into account. In detail the figures are:—

	Population.		Educational Grant.		Rate per head. Decimals of £1.
England and Wales	25,974,439	..	£3,422,989	..	0·1379
Scotland	3,735,573	..	524,263	..	0·1398
Ireland	5,174,836	..	828,073	..	0·1591
United Kingdom, without Islands or Army abroad	34,884,848	..	£4,875,325	..	0·1393

of land, on which he constructed a model village, in connection with the great factory which gave to its inhabitants employment. His work deserves, and has justly received, high praise. It stopped short of the ideas that give such vast social importance to the work of M. Godin—the transformation of the workers into capitalists by the accumulated profits of their own work—and the associated home, by which, without impairing the individuality of domestic life, the advantages of wealth may be brought within the reach of all, and the differences of fortune be blended together to contribute to the common weal. But it opens the view to another set of prospects, through which the associated home and the capital-creating manufactory can become the unfailing source of well-being to mankind, namely, the re-marriage of agriculture with manufactures.

If we turn to the epochs and the countries where the body of the people have enjoyed the greatest amount of prosperity, we shall, I believe, without exception, be confronted by those where the population united some form of manufacturing industry with agriculture. Our present social system divorces them. It buries immense masses of persons in vast towns, in Great Britain mainly beneath canopies of smoke, of whom nearly all subsist on producing what they cannot eat or use, but have to run all over the planet to find somebody who will take it off their hands, and so enable them to acquire food and other necessaries. The system is as far removed from the natural conditions of animal existence as any system can well be. It leads to that perpetual struggle to obtain custom, and that enormous exaggeration of the cost of land in those great smoke dens called cities, to which the conflicts between employers and employed, and the wretched surroundings of large bodies of our population are directly traceable. Proposals have lately been made to remedy the excessive agglomeration of the population in our cities by colonising them in villages. But to make this scheme succeed we need a form of country residence which shall be generally attractive, and allow of the marriage of

agriculture with manufacturing industry, under the conditions most conducive to the success of both. For the fulfilment of these requirements, I look to the associated home, the social palace, which the facilities of railway locomotion, and the use of electricity as a means of distributing over wide areas power generated in the places where it can be produced most economically, will make it possible to multiply where in former days this might have been impracticable. The population of the United Kingdom at the last census, including the Channel Islands, slightly exceeded 35,000,000. It has been estimated by skilful agriculturists that if all the cultivatible parts of this kingdom were as well cultivated as some parts are now, the United Kingdom could support a population of 60,000,000; who, living as the greater part of them would do if this population were spread over the country in associated homes, on the lands whence they derived their food, exchanging the bulk of their manufactures among themselves under the arrangements least wasteful, and producing those manufactures by the aid of labour-saving machines with the maximum of economy, could not fail to attain a measure of material prosperity which, no longer dependent on competition in distant markets, would make the "cry of outcast" competitors for existence in former ages seem like memories of a bad dream. Yet this Utopia might be reached by as gentle a process, with as little convulsionary disturbance as has attended the peaceful revolution inaugurated some fifty years since by the trial of the Rocket locomotive on the Manchester and Liverpool Railway, and the passage of the Great Western steamer from England to New York.

Its introduction, as I have already urged, does not require any greater amount of moral excellence than the classes for whose benefit it is specially designed now possess. The co-operators of Great Britain probably consist mainly of the most provident and thrifty among the artisan class. But the spread of distributive societies demonstrates that a very large number of this class

possess as much of these virtues as is requisite to insure the success of their stores. The ironworkers at Guise are in no way a selected class. They came from all parts of France to seek work. But in the many years during which they have occupied the Familistère in large numbers, and the continued and close intercourse they have had with each other, there has never been occasion for the intervention of the police.

In truth, the action of such institutions is essentially moralising. In our distributive societies this is less felt, both from the frequent changes in the *personnel* of these societies, and because the attention of the members is apt to be mainly fixed on a consideration which has no moral character—namely, the amount of "divi" that they may get on their purchases. Nevertheless, a strong sense of the higher objects of Co-operative Union is usually found to grow up among the more active and influential members of such societies, who gradually leaven the mass.

And in productive societies, where the principle of directing the gains of the work to the permanent elevation of the workers has been systematically carried out, the effect on the improvement of their characters has been clearly shown. The painters in the famous association founded by M. Leclaire, though drawn from a class who had a general reputation for intemperate and dissolute habits, have been and are remarkable for sobriety and good conduct. The Familistère at Guise appears to have developed among the workers employed in it a genuine attachment to the institution, and zeal for its prosperity.

This is not more than may be reasonably expected. Men's characters are undoubtedly largely moulded by the reaction of their surroundings on them. If their daily lives foster the spirit of egotistic struggle, the majority may be expected to be selfish egotists. If, on the other hand, the common good is perpetually presented to them as the object to which their efforts should be mainly directed, Reason will more and more take the helm, and direct the impulses of desire to this nobler end. If the principle

of association for the promotion of the general welfare is, as I have argued, the expression of reasonable will in its application to human affairs, the practice of association must be expected to foster among all who come under its influence, the growth and predominance of reasonable will. Hence it is that, in my judgment, the systematic development of the practice of association, is of such immense importance to the welfare of mankind. It marks the opening of a new era.

Out of the dark the circling sphere
  Is rounding onwards to the light;
We see not yet the full day here,
  But we do see the paling night.

Look backward. How much has been won.
  Look round. How much is yet to win,
The watches of the night are done,
  The watches of the day begin.

MANCHESTER STATISTICAL SOCIETY.

On the Modern Science of Economics.

By Henry Dunning Macleod, M.A.

Read April 20th, 1887.

It is a matter of common notoriety that while economists, in this country at least, have during the last three-quarters of a century achieved a series of great successes, the science of Political Economy itself, or Economics as it may more aptly, and is now becoming more usually termed, is in a most unsatisfactory state; and, indeed, a very large number of persons deny that there is any intelligible science of Economics at all.

As a matter of fact, economists throughout the world are divided into two camps—one division holds that it is the science which treats of the production, distribution, and consumption of wealth; but the other division, which is now enlisting new adherents every day, and is gradually gaining the ascendency throughout the world, defines it as the science of commerce or exchanges.

I shall show you a little further on that these two expressions originally meant exactly the same thing, and the main question which I shall submit for your determination is, which of these two expressions is the more suitable for the science in its state of development at the present day?

It is very commonly supposed that Adam Smith was the founder of political economy. A once-prominent politician is reported to have said that political economy and free trade sprang complete from the head of Adam Smith, as Minerva did from the

head of Jupiter; but such ideas are wholly erroneous. Political economy was founded by a series of illustrious philosophers in France, in the middle of the last century, and it was they who devised the expression, *Production, Distribution, and Consumption of Wealth*; and I shall show you that the present deplorable state of the science is due to modern writers having entirely misapprehended its original meaning.

But, at all events, all economists are agreed that their science treats exclusively about wealth, and that it is the science of wealth. We have then to inquire, What is a science? and what is the science of wealth?

What, then, is a science? A science is a body of phenomena or facts, all based upon some single general idea or quality; and it is a fundamental law of natural philosophy that all quantities whatever which possess that quality, however diverse they may be in other respects, must be included in that science; and the object of the science is to discover and ascertain the laws which govern the phenomena, or govern the relations of the quantities of which the science consists.

If, then, economics is the science of wealth, the first thing to be done is to determine what that single general quality is which constitutes things wealth, then to discover all the various kinds of quantities which possess that single quality, and then to determine the laws which govern the relations of all these various quantities.

On the Definition of Wealth.

And in submitting to your consideration the true definition of the word wealth, I hope that you will not think that I am going to amuse you with vain logomachy or curious speculation. On the contrary, this word is not only the basis of a great science, but there is none, probably, which has so seriously influenced the history of the world and the welfare of nations, according to the meaning given to it at various periods.

For many centuries the legislation of every country in Europe was moulded by the meaning of the word wealth. The eminent French economist, J. B. Say, says that during the two centuries preceding his time, fifty years were spent in wars directly originating out of the meaning given to this word.

Another economist, Storch, speaking of the mercantile system which prevailed so long, says, "It is no exaggeration to say that there are few political errors which have produced more mischief than the mercantile system. . . . It has made each nation regard the welfare of its neighbours as incompatible with its own: hence their reciprocal desire of injuring and impoverishing one another, and hence that spirit of commercial rivalry which has been the immediate or remote cause of the greater number of modern wars. . . . In short, where it has been the least injurious, it has retarded the progress of national prosperity: everywhere else it has deluged the earth with blood, and has depopulated and ruined some of those countries whose power and opulence it was supposed it would carry to the highest pitch."

So Whately says: "It were well if the ambiguities of this word had done no more than puzzle philosophers. . . . It has for centuries done more, and perhaps for centuries to come will do more, to retard the progress of Europe than all other causes put together."

Now, certainly, we may be very sure that no wars in future times will ever again be caused by the meaning of the word wealth. But for all that, is all danger over? Far from it. On the contrary, if possible, we are menaced with a more terrible danger still. Because that dread spectre of Socialism, which now threatens war and revolution to every country on the Continent, and from which this country is not entirely free, is entirely based, as the Socialists themselves say, on the doctrines of wealth put forward by Adam Smith and Ricardo.

These considerations, which are nothing but the literal truth, show you the gravity and the importance of the inquiry to which

I now invite you. I hope that this evening we may entirely clear away this reproach, and that the words I am going to say may not vanish from your minds as if they were written in sand on the seashore; but rather that they may be as if they were written with an iron pen, and graven on the rock for ever.

We have now, then, to search for that single general quality which constitutes things wealth.

More than two thousand years ago Aristotle said, "*χρήματα δὲ λέγομεν πάντα ὅσῶν ἡ ἀξία νομίσματι μετρεῖται:*"

By the term wealth we mean all things whose value can be measured in money.

Thus Aristotle makes exchangeability, or the capability of being bought or sold, to be the sole essence and principle of wealth. Consequently, everything which can be bought or sold is wealth, whatever its nature or its form may be.

Now, here we have a perfectly good general definition, which contains only one general idea, and which is therefore fitted to form the basis of a great science. This single sentence is, in fact, the germ out of which the whole science of economics is to be evolved, just as the huge oak tree is developed out of the tiny acorn.

We have next to discover how many distinct orders of quantities there are which can be bought and sold, or whose value can be measured in money, *i.e.*, possess the quality of exchangeability.

In the first place there are material things of a multitude of different kinds, such as land, houses, cattle, corn, money, &c., which can all be bought and sold, which every one now admits to be wealth.

There are, however, other kinds of quantities whose value can be measured in money, which we have now to consider.

Ancient Dialogue to Show that Labour is Wealth.

There is a remarkable ancient work extant, which is, as far as I am aware, the earliest regular treatise on an economical question.

It is termed the "Eryxias," or "On Wealth." The purport of this dialogue is this. The Syracusans had sent an embassy to Athens, and the Athenians had sent a return embassy to Syracuse. As the ambassadors were entering the city, on their return from Syracuse, they met Socrates and a party of his friends, with whom they entered into conversation. Eryxias, one of the envoys, said that he had seen the richest man in all Sicily. Socrates immediately started a discussion on the nature of wealth. Eryxias said that he thought upon the subject as every one else did, and that to be wealthy meant to have much money. Socrates asked him what kind of money he meant, and he described the money of various countries. At Carthage they used as money leather discs, in which something was sewn up, but no one knew what it was, and he who possessed the greatest quantity of this money at Carthage was the richest man there; but at Athens he would be no richer than if he had so many pebbles from the hill. At Lacedæmon they used iron as money, and that useless iron. He who possessed a great quantity of this at Sparta would be wealthy, but anywhere else it would be worth nothing. In Æthiopia again, they used carved pebbles, which were of no use anywhere else.

Thus Socrates showed that money is wealth only in those places where it is exchangeable, or has purchasing power. In those places where it is not exchangeable, or has not purchasing power, it is not wealth.

Socrates then asked, "Why are some things wealth, and some things are not wealth?" "Why are some things wealth in some places and not in others, and at some times and not others?" He then showed that whether things are wealth or not depends entirely upon human wants and desires; that everything is wealth where it is wanted and demanded; and that it is not wealth where it is not wanted and demanded.

Socrates then showed that things are χρήματα, or wealth, only when and where they are χρήσιμα—that is, where they are wanted and demanded.

Thus, though some persons might be puzzled at the meaning of the word *wealth*, there is no possibility of mistake when we refer to the Greek, because χρῆμα, which is one of the most usual words for wealth in Greek, comes from χράομαι, to want or demand; consequently the word χρῆμα, or wealth, means simply anything whatever which is wanted and demanded, no matter what its nature or its form may be.

It is, then, human wants and desires which alone constitute anything as wealth: anything whatever which men want and demand, and are willing to pay for, is wealth, whatever its nature may be: anything which no one wants and demands is not wealth.

Socrates then showed that anything else which enables us to purchase what we want and demand is wealth, for exactly the same reason that gold and silver are.

He instanced professors and persons who gained their living by giving instruction in the various sciences. He said that persons got what they wanted in exchange for this instruction, just as they did for gold and silver; and consequently, he said, the sciences are wealth—αἱ ἐπίστημαι χρήματα οὖσαι; and that those who are masters of such sciences are so much the richer—πλουσίωτεροί εἰσι.

Now, in instancing the sciences as wealth, that of course is a general term for labour, because labour, in economics, is any exertion of human ability, or thought, which is wanted, demanded, and paid for. Now, labour or thought cannot be seen or handled, but it can be bought and sold: its value can be measured in money, and therefore, by Aristotle's definition, it is wealth.

Socrates, in this dialogue, shows that the mind has wants and demands as well as the body, and that the services which are wanted and demanded by the mind, and are paid for, are equally wealth, as those material commodities which satisfy the wants and demands of the body and are paid for.

Thus Socrates shows that personal qualities are wealth, and a person makes an income by the exertion of his skill and labour

as an advocate, a physician, an engineer, or the manager of a great company, just in the same way as another person makes an income by selling material commodities.

Demosthenes Shows that Personal Credit is Wealth.

But personal qualities may be used as purchasing power in another way besides that of labour. If a merchant enjoys good "credit," as it is termed, he may go into the market and buy goods, not with money, but by giving his promise to pay money at a future time—that is, he creates a right of action against himself. The goods become his actual property, exactly as if he had paid for them with money—in fact, this righ of action is the price he pays for them, and this right of action is termed a credit, because it is not a right to any specific sum of money, but only a general right against the person of the merchant to demand a sum of money at some future time.

Hence a merchant's credit has purchasing power exactly as money has. When a merchant purchases goods with his credit, instead of with money, his credit can be valued in money exactly as his labour may be; and therefore, by Aristotle's definition, personal credit is wealth; and so also Demosthenes says—*Δυοῖν ἀγαθοῖν ὄντοιν πλούτου τε καὶ τοῦ πρὸς ἅπαντας πιστεύεσθαι, μεῖζόν ἐστι τὸ τῆς πίστεως ὑπαρχον ἡμῖν.*

There being two kinds of property, money and general credit, our greatest property is credit.

Also he says—*Εἰ δὲ τοῦτο ἀγνοεῖς ὅτι πίστις ἀφορμὴ τῶν πασῶν ἐστὶ μεγίστη πρὸς χρηματισμὸν, πᾶν ἂν ἀγνοήσειας.*

If you did not know this, that credit is the greatest capital of all towards the acquisition of wealth, you would be utterly ignorant.

Thus, Demosthenes shows that personal credit is *ἀγαθὰ*, or goods and chattels and *ἀφορμὴ*, or capital.

Thus, though credit, like labour, cannot be seen, nor touched, nor handled, yet it may be bought and sold, or exchanged—its value can be measured in money, and therefore it is wealth.

Thus it is now clearly shown that personal qualities, both in the form of labour of all kinds, and also in the form of the credit of our merchants and traders, of all sorts, is national wealth, and it also follows that the credit of the state itself is also national wealth.

All Jurists Show that Rights are Wealth.

But there is yet another order of quantities which can be bought and sold, or exchanged, and whose value can be measured in money, and which are therefore wealth by the definition, and it is to this order of quantities that I would specially direct your attention, because it is in respect of them that modern economists are chiefly at fault, and it is with them that the most important questions in modern economics are chiefly concerned.

Suppose that I pay a sum of money into my account with my banker. What becomes of that money? It becomes the absolute property of my banker. I transfer to him the absolute property in the money. But I do not make him a present of it. I get something in exchange for it. And what is that something? In exchange for the money my banker gives me a credit in his books—that is, he gives me a right of action to demand an equal sum of money from him at any time I please.

This right of action is termed a credit, and it is the price the banker pays for the money; and if I write that right of action down on paper in the form of a cheque, that cheque may circulate in commerce and effect exchanges, exactly like so much money, until it is paid off and extinguished.

So also, if a merchant buys goods on credit, by giving in payment for the goods a right of action against himself to demand so much money at a future time, that right of action is the payment for the goods, and the owner of it may write it down on paper in

the form of a bill of exchange; and that bill of exchange may circulate in commerce and effect exchanges exactly like so much money until it is paid off and extinguished.

Thus a right of action written on paper, in the form of a cheque or a bill of exchange, is itself an independent exchangeable article of property, or a vendible commodity, and may be bought and sold exactly like a piece of money, or a house, or a watch, or any other material commodity.

These rights of action are termed credit, because they are not a title to any specific sum of money, but they are merely abstract rights to demand a sum of money from a debtor; and anyone who buys them does so only because he has the belief, or confidence, or trust, that the debtor can pay them at the proper time.

It will also be convenient to state here that they are also called debts. To go into the whole question of credit and debt would be too long here; but it must be sufficient to state that the words credit and debt are used perfectly indiscriminately in English law and common usage to mean the creditor's right of action to demand a sum of money from a person.

But there are a great many other kinds of abstract rights which receive different names according to the subject to which they refer, which may all be bought and sold, and are therefore also vendible commodities.

Suppose that the state wants money for some public purpose, such as a great war or to execute some public work. It buys money from any person who is willing to sell it to it, and in exchange for the money it gives the subscribers certain rights to demand a series of future payments from the nation. These rights, in popular language, are termed the funds or consols; and the public creditors may sell these rights to any one else they please. These rights may be bought and sold like any material commodity. They are vendible commodities, and therefore wealth by the definition. Suppose that any person wishes to subscribe to the capital of a public company—banking, railway, canal, dock, or

any other. The money he pays becomes the absolute property of the company, as a distinct person in its corporate capacity, and in exchange for the money he receives certain rights to share in the future profits to be made by the company. These rights are termed shares, and the shareholder may sell his rights to any one else. These shares may be bought and sold like any material chattels. They are vendible commodities, and therefore wealth by the definition.

Suppose that a trader establishes a successful business of any sort. Besides the house or premises in which the business is carried on, and the material goods in his shop, he has the right to receive the future profits to be made by the business. This abstract right is termed the goodwill of the business, and the goodwill is part of the trader's assets, over and above the material goods in the shop, and he can sell it for money to any one else. It is a vendible commodity, and therefore wealth.

So when an author publishes a work, he has the exclusive right of publishing that work, and receiving the profits made by it for a certain time. That right is termed copyright, and is a property quite separate from the printed volumes of the work. And the author may sell that copyright to anyone he pleases like a material chattel. It is therefore a vendible commodity, and wealth by the definition.

There are also a considerable number of other abstract rights, of a similar nature, which it would be too long to enumerate, because I do not want to enumerate every separate right, but to call your attention to a particular class of saleable quantities.

Now all these rights of various sorts cannot be handled, nor seen, in that form, but they can all be bought and sold, their value can be measured in money, and therefore they are all wealth.

But all these rights may be written down on some material, such as paper or parchment; and then they may be transferred by manual delivery, like any other material commodity—like money or any other goods.

And because all these rights can be bought and sold, because their value can be measured in money, all jurists expressly class them under the terms "wealth," "goods," "goods and chattels," or "vendible commodities."

Thus in the great code of Roman law named the Pandects it is laid down as a fundamental definition: "Pecuniæ nomine non solum numerata pecunia, sed omnes res, tam soli quam mobiles, et tam corpora quam *jura* continentur."

Under the term wealth, not only ready money but all things both immovable and movable, both corporeal things and rights, are included.

Also "Rei appellatione et *Causæ* et *Jura* continentur."

Under the term property both rights of action and rights are included.

"Æque bonis adnumerabitur si quid est et actionibus."

Rights of action are justly reckoned under the term goods and chattels.

So the eminent jurist Ulpian says: "Nomina eorum qui sub conditione vel in diem debent et emere et vendere solemus. Ea enim *Res* est quæ emi et venire potest."

We are accustomed to buy and sell debts payable at a certain event or on a certain day, for that is wealth which can be bought and sold.

So Colquhoun, in his "Summary of Roman Law," says that under the term *Merx* is included anything whatever which can be bought and sold, no matter whether it is movable or immovable, corporeal or incorporeal, existent or nonexistent, such as a horse, or a right of action, servitude, or thing to be acquired, or the acquisition where it depends on chance.

Thus I have shown you that in Roman law abstract rights of all sorts are included under the terms *pecunia* (wealth), *bona* (goods and chattels), *Res* (property), and *merx* (merchandise).

The Pandects were published in the year 530 A.D., at Constantinople, but while the official language was Latin, the

people were Greek, consequently the Latin Pandects very soon fell into desuetude. They were superseded by Greek translations, and treatises, and at last, in the ninth and tenth centuries, under the Basilian dynasty, they were entirely superseded and set aside as obsolete. A new digest or revised code was published in Greek, called the Basilica, which has remained to the present day as the common law of all the Greek population in the East.

And in the Basilica these definitions of wealth are repeated: Τῷ *ὀνόματι τῶν χρημάτων οὐ μόνον τὰ χρήματα, ἀλλὰ πάντα τὰ κινητὰ καὶ ἀκινητὰ, καὶ τὰ σωματικὰ καὶ τὰ δίκαια δηλοῦται.*

Under the term *χρήματα* or wealth, rights are included. Also, *τῇ τοῦ πράγματος προσηγορίᾳ καὶ Αἴτιαι καὶ δίκαια περιέχεται*: Under the term goods and chattels, rights of action and rights are included. So in Greek law, abstract rights are included under *ἀγαθὰ* (goods), *οὐσία* (estate), *ἀφορμὴ* (capital); and they are termed *οὐσία ἀφάνης*, invisible wealth.

It is exactly the same in English law. In the old law of Normandy it is expressly said that rights of action are included under the term chattels. It was resolved in a case in the time of Elizabeth that personal actions are included under the word goods in an Act of Parliament. So in a well-known case it was said, "But goods and chattels include debts." Things in action are considered as "goods and chattels."

Every tiro in law knows perfectly that it is laid down in every elementary text-book of English law that pure abstract rights are termed goods and chattels, personal chattels, incorporeal chattels, and incorporeal wealth.

Thus in every system of jurisprudence in the world, Roman, Greek, and English, abstract rights of all sorts—debts, rights of action, bank notes, bills of exchange, the funds, shares in commercial companies, copyrights, patents, &c.—are termed *pecunia, res, bona, merx*—*χρήματα, πράγματα, ἀγαθὰ, οὐσία, ἀφορμὴ*—goods, chattels, vendible commodities, and wealth.

I have now shown you, as I said before, that for the space of 1,300 years the ancients unanimously held that exchangeability is the sole essence and principle of wealth: that everything is wealth which can be bought and sold, or exchanged, or whose value can be measured in money. They also showed that there are three distinct orders of quantities which possess the quality of exchangeability, or which can be bought and sold, namely, material things, services or labour, and abstract rights.

And reflection will show that there is nothing which can be bought and sold which is not of one of these three forms—either it is a material chattel, or it is a service of some kind, or it is an abstract right.

I have now, then, shown you that there are three, and only three, orders of exchangeable or economic quantities, and you will at once see that these can be exchanged in six different ways:—

1. A material thing can be exchanged for a material thing, as when gold money is exchanged for corn or jewelry.

2. A material thing can be exchanged for labour, as when gold money is paid for labour.

3. A material thing can be exchanged for a right, as when gold money is given to purchase a bill of exchange, shares, or the goodwill of a business, a copyright, &c.

4. Labour can be exchanged for labour, as when two persons agree to render each other services.

5. Labour can be exchanged for a right, as when wages are paid in bank notes or cheques.

6. A right can be exchanged for a right, as when a banker discounts a bill of exchange, by giving a credit in his books that he buys one right by giving another right.

And these six distinct kinds of exchange constitute the science of exchanges, or of commerce in its widest extent, and in all its forms and varieties.

And if any of the great Roman lawyers, with the materials he had before him, had ever conceived the idea of constructing a

complete scientific exposition of the mechanism of the mighty system of commerce, the science of economics would have been 1,500 years in advance of its present state, and it would have saved centuries of misery, bad legislation, and bloodshed to the world.

Now, the law which regulates the exchangeable relations of these quantities is called the law of value; and the least acquaintance with the principles of natural philosophy shows that there can only be one grand general law of value, which governs all exchanges in all their multiplicity and complexity.

And I will now complete this part of the subject by bringing before you the doctrine which is the basis of the theory of credit, and of all other kinds of incorporeal property. It is this: that every future profit, from whatever source it arises, whether from land or from personal industry, has a *present value*: and that present value can be bought and sold, or can be measured in money, and therefore, by the definition which the ancients unanimously held for 1,300 years, that present right, or the present value of the future payment, is itself an independent article of wealth, quite separate and distinct from the future payment itself.

Thus a bank note or a bill of exchange is simply the right to a future payment, and every one knows that bank notes and bills of exchange circulate and are exchanged in commerce, by hundreds of millions, quite independently of the money they may ultimately be paid in; and in fact, in modern commerce, bank notes and bills of exchange are very rarely paid in money at all, but by other methods which are too long to explain here.

So shares, copyrights, the funds, the goodwill of a business, patents, &c., are all simply rights to future payments or profits; and they are sold quite separately from those future payments or profits.

It is thus seen that ancient writers possessed the true scientific instinct. They unanimously fixed on one single general quality,

namely, exchangeability, or the capacity of being bought and sold, as the sole essence and principle of wealth. They then searched out and discovered all the distinct orders of quantities which possess that quality, and they include them all under the terms *pecunia*, *res*, *bona*, *merx*—*ἀγαθὰ*, *πράγματα*, *χρήματα*, *οὐσία*, &c., or wealth, property, goods and chattels, or commodities.

And when we see that the great problem in the science is to discover the single general law, which governs all their variable relations, anyone with the slightest mathematical feeling can at once perceive that we have here the materials of a great mathematical science, because we have a distinct order of variable quantities, and it is perfectly clear that the same general principles of reasoning must govern the relations of this order of variable quantities that govern the relations of all other variable quantities.

We must now bid adieu to those halcyon days when all the world was unanimous, and pass through centuries of war and controversy, till we shall find that at last modern economists have come to the same doctrine as the ancients.

On the Meaning of Wealth in Modern Times.

We have now to investigate the meaning of wealth in modern times, and I must ask you to pretend to forget all that I have already said, because it was totally unknown until I brought it to light.

For many centuries money was held to be the only wealth. Men saw that money could purchase everything—that while most other things decayed away and perished money remained. Every nation held it to be of the greatest importance to accumulate as much money as possible. For centuries the legislation of every country in Europe was moulded to encourage the importation and to prevent the exportation of money as much as possible.

From the doctrine that only money is wealth, it naturally followed that what one side gained the other lost. And this idea

was held by the wisest statesmen, and was the cause of innumerable commercial wars for centuries.

At last, however, somewhere about the end of the 17th century, men began to see the folly of holding money to be the only wealth, and the word was extended to mean all the material products of the earth which conduce to the comfort and welfare of mankind.

During all this time there were a few farsighted spirits who saw through the fallacy of the whole thing, and advocated freedom of trade between countries, but they were solitary lights shining in darkness, and the darkness apprehended them not. But in this brief outline I must pass over their names, because though they advocated freedom of trade as a good thing, none of them ever perceived that there is such a thing as a definite positive science of economics.

Origin of Political Economy in Modern Times.

I will now relate the circumstances which gave rise to a sect of illustrious philosophers who founded economics as a science.

In 1721, John Law's theory of paper money had been tried in France, and produced that terrible catastrophe which you all know by the name of the Mississippi scheme.

And here I may make a few passing remarks upon Law. It is too often the custom to regard him as a mere rogue and swindler and charlatan, but that is a most profound error. He was the ablest and most profound financier of his age. When France was in the lowest depths of misery at the death of Louis XIV., he addressed a series of fifteen letters on credit and banking to the Regent Orleans, which show an infinitely greater knowledge of the subject that any other writer of his day possessed.

In 1718 he was allowed to found the Bank of Paris, and in three years he had restored the country to such a state of prosperity that foreign nations sent ambassadors to congratulate the Regent.

With regard to the principles of mere credit he was perfectly sound. But he saw that the powers of credit are limited, and he conceived the unfortunate idea of issuing a paper money based upon land beyond the limit of credit. He maintained that if an inconvertible paper money were issued upon land to the amount of twenty years' purchase, it would maintain a par value with specie. He had previously brought his plan before the Scotch Parliament, in 1705, but they, with a wise instinct, rejected it. Having, however, achieved such marvellous success with his bank, he was allowed and urged to carry out his scheme of paper money, with the result so well known.

In speaking of Law, then, you must always remember that his exposition of banking and credit and his scheme of paper money are two totally distinct things. Nor was his scheme of paper money a mere swindle, as is so often thought; on the contrary, it is founded on a definite theory which he has fully explained. Unfortunately the theory is entirely erroneous, and it is quite easy to show that the consequences must necessarily have resulted from it.

His ideas are so far from being dead and gone that they have plenty of believers at the present day. The Bank of England is partly founded on Lawism. The fifteen millions of notes which the Bank is allowed to issue against public securities is an example of pure Lawism. The first increases of the National Debt were all loans from the Bank, which was on each occasion allowed to issue an increased amount of notes to an equal extent. If that principle had been carried out to the present day, we should have had a National Debt of eight hundred millions, and also eight hundred millions of notes, which I need hardly say would have landed us in as great a catastrophe as the Mississippi scheme.

Many eminent bankers at the present day advocate the issue of notes on public securities. Let me assure them that they are true disciples of Law. This was tried on a large scale in America in 1837-8-9, and the result was that in 1839 every bank in America

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stopped payment. The fact is that issuing notes upon land and upon public securities are identically the same in principle; and if only pushed far enough lead to the same results.

Let us now, however, resume the thread of our discourse. The Mississippi catastrophe first turned the attention of Turgot, then a very young man, to economics, but that was far from being the only circumstance. It is scarcely possible to realise the picture of the misery of the French people, given by contemporary writers, from the effect of the wars of Louis XIV., the grinding system of taxation, and the feudal privileges. Each province was a separate jurisdiction fenced round with custom-houses, so that there was no freedom of internal commerce: the minutest process of every manufacture was regulated by law; and on the slightest infraction of these regulations the manufactures were destroyed by the Government inspectors. The greater part of the world was sunk in slavery, and the slightest disrespect of the ecclesiastical authorities was punished with breaking on the wheel.

It was in 1750 that a sect of illustrious philosophers, Turgot, Quesnay, and many others directed their attention to these things, and they maintained that there is a science of natural right, and that the misery they saw around them was caused by the violation of this natural right. They maintained that there is a science of the relations of men towards the State, towards each other, and towards property. In 1759 they published a code of doctrine in which they declared that freedom of person, freedom of opinion, and freedom of commerce or exchange, are the natural rights of mankind, and they also declared the fallacy of the doctrine of the balance of trade. This science they termed political economy.

It was the economists then who first declared that there is a science of political economy, and not merely advocated freedom of trade as a beneficial thing, but proclaimed it as the natural right of mankind. It was they who devised the expression, "production, distribution, and consumption of wealth," and I

must ask your earnest attention to the meaning of that expression as explained by its originators.

They defined the term "wealth" to be the material products of the earth which are brought into commerce and exchanged, and those only. The products which the owners consumed themselves they termed *Biens*; those only which they exchanged away they termed *Richesses*.

Hence, as the ancients did, the founders of economics in modern times held that exchangeability is the essence of wealth as a technical term. But they restricted it to *material* products. They refused to admit that labour and credit are wealth, because they said that to do that would be to admit that wealth can be created out of nothing, and they constantly repeated *ex nihilo nihil fit*. They therefore held that the earth is the sole source of wealth.

Now, it is contrary to the laws of natural philosophy to admit that exchangeability is the principle of wealth, and then to restrict it to material products. Bacon repeatedly points out that when you have once settled upon the principle or quality which is the basis of a science, you must search for and include all quantities whatever, however diverse their forms may be, which contain that quality, and as labour and credit are both exchangeable, it is contrary to the laws of natural philosophy to exclude them from the term wealth.

I will now explain the meaning of the expressions "Production," "Distribution," and "Consumption" of wealth.

They defined Production to be the obtaining the raw produce from the earth and bringing it into commerce and offering it for sale.

But this raw produce is seldom fit for immediate use; it has to undergo several intermediate processes of manufacture and transport before it is brought to the person who ultimately purchases it.

All the persons engaged in these intermediate processes they termed *Distributors.*

The person who finally purchased the finishsd product for use and enjoyment, and took it out of commerce, they termed the *Consommateur*; because *consommer* in French means to complete or terminate, and the purchaser is the person who completes the transaction.

The whole transaction—the bringing the produce into commerce, the various changes of form and place it underwent, and its final purchase for use, or *consommation*—the economists termed *Commerce* or *Exchange.*

An exchange, however, may take place between two parties; and distribution was often used as equivalent to *consommation.* Consequently, "production, distribution, and consumption," "production and distribution," "production and consumption," were all equivalent expressions, and never meant anything else, as explained by the economists, than *Commerce* or *Exchange.*

Production and consumption never meant anything but supply and demand, and supply and demand constitute commerce or exchange.

Thus the expression "production, distribution, and consumption" is one and indivisible, and it must not be separated into its component parts.

Now, this is the whole point in the contest between the modern schools of economists—considering that these two expressions, "production, distribution, and consumption" of wealth, and Commerce or Exchange, were absolutely equivalent at their first use, which is the better conception for the science at the present day, in its enlarged state.

Even supposing that the term "wealth" is to be restricted to material things, a difficulty arises with respect to the first expression. The land itself is a saleable commodity; and how are we to speak of the "production, distribution, and consumption,"

of land? whereas it is quite usual to speak of the "supply and demand" of land. Thus, even if wealth were restricted to material things, the second expression is wider and more intelligible.

In fact, the first expression imposes a cast-iron limit on the subject, and it was intended to do so—there is no expansiveness on it; while the second expression is expansive, and includes all commerce in its widest extent.

The first economists were highly cultivated men, and had wide and philosophical views, but they had no practical experience of commerce. While, therefore, they perceived the national advantage of freeing commerce from all restraint, they never made any attempt to exhibit its actual mechanism.

They refused to admit that credit is wealth, but many other contemporary writers did.

The first writer in modern times who agreed with Demosthenes in designating credit as wealth, was that acute metaphysician Bishop Berkeley. In his "Querist" he has many searching queries on economics; one is "Whether power to command the industry of others (*i.e.*, credit) be not real wealth?" So all mercantile writers, contemporary with the economists, seeing that credit has exactly the same purchasing power as money, expressly class credit as wealth. So Junius says, "Private credit is wealth."

Physiocrate Doctrine of Productive Labour.

I have now to direct your attention to a remarkable doctrine of the economists, which was, as I shall show, the cause of Smith's work.

They defined productive labour to be labour which left a profit after all expenses were defrayed. They maintained that agricultural is the only form of productive labour, *i.e.*, that leaves a profit; and that profit they termed *produit net*, and held to be the only revenue of the State.

They alleged that in commerce it is always an exchange of equal values, and, therefore, that there is no profit on either side.

They admitted that manufactured articles are of greater value than the raw material, but they said that that increased value only replaced the maintenance of the workmen; and so that, upon the whole, there was no increase of value or of national wealth.

They maintained, therefore, that the agriculturists are the only class of productive labourers, and that all others are sterile or unproductive; and that as the whole revenue of the State consisted of the *produit net* of land, that all taxation should be laid on the rent of land.

From these doctrines they drew the astounding conclusion, that neither commerce nor manufactures can enrich a nation.

While, therefore, the doctrine before the economists was that what one side gained in an exchange the other side lost, they alleged that in an exchange neither side gains.

Now, the economists deserve this praise at least: in all their reasonings they strictly defined their terms, and there was no possibility of mistaking their meaning.

When they stigmatised all classes, except the agriculturists, as sterile and unproductive, it aroused a most powerful reaction against them; and when the consequence of their doctrine, that in an exchange neither side gains, led to the paradoxical conclusion that neither commerce nor manufactures can enrich a nation, so contrary to the plainest facts of history, a host of writers in all countries rose up against them, and men of intelligence began to inquire whether it is true that in an exchange neither side gains.

It was these doctrines which were the real origin of Smith's "Wealth of Nations."

It has, indeed, been said that Smith taught at Glasgow the same doctrines that he afterwards published in his work. But not a line of Smith's teaching is in existence. It may possibly be true that he advocated freedom of trade at Glasgow, but there were numbers of other writers who did the same.

In 1763 Smith travelled abroad as tutor to the young Duke of Buccleuch, and became acquainted with the economists, at Paris,

then in the height of their fame. In 1766 he returned to Kirkcaldy, his native place, and spent ten years in the composition of his work, which was published in 1776. Thus you see that it is quite erroneous to suppose that Smith was either the founder of political economy or the originator of free-trade. The code of the economists was published in 1759, of which free-trade was a cardinal principle. Smith's work was not published till 1776.

In the same year Condillac, the well-known metaphysician, published a work entitled "*Le Commerce et le Gouvernement*," written on much the same plan, and with the very same object as Smith, namely, to prove that in an exchange both sides gain; but his proof is not very satisfactory. Smith alone proved, by irrefragable reasoning, which, of course, is far too long and intricate to explain here, that in commerce both sides gain, and, of course, as the necessary consequence, that commerce and manufactures both enrich a nation, and therefore that those who engage in them are productive labourers.

Perhaps you may think that the doctrine is so plain that it needs no proof; but that is far from being the case. At the time Smith proved it, it was a perfect paradox, contrary to the universal opinion of centuries. It is now the very corner-stone of economics, and it made a complete change in the policy of nations, because the doctrine formerly held was the cause of commercial wars for centuries, while Smith's doctrine showed that every nation is interested in the prosperity of its neighbours.

And that is one of Smith's titles to immortal fame.

He does not call his work a treatise on Political Economy: he entitles it "An Inquiry into the Nature and Causes of the Wealth of Nations." But most unfortunately he never gives throughout the whole course of it any clear idea of what he means by wealth.

But in the early part he speaks of the real wealth of a country as being the "annual produce of land and labour."

We have now to examine whether such a definition can be accepted as the basis of economics as a great science.

In the first place, it is to be observed that he has omitted the quality of exchangeability from the definition which the economists expressly insisted upon.

Now, it is perfectly obvious that the mere definition of wealth as the "annual produce of land and labour" cannot be accepted as a suitable definition of the term, because, if it were so, every useless work done would be wealth. If one were to build a pyramid on the top of Ben Nevis, would that be wealth? The simplest form of the "produce of land and labour" are children's mud pies. So that if we accept that definition simply, the way to augment the wealth of the country would be to set all the dirty children in it diligently to make mud pies.

The medium price of an acre of land near the Bank of England or the Royal Exchange is about a million sterling. Is not that land wealth? And how is that land itself the "produce of land and labour?"

Further on, Smith classes the natural and acquired abilities of the inhabitants as fixed capital, and he treats labour as a vendible commodity, and has a long discussion on the price of labour or wages. Now, how are the "natural and acquired abilities" of the people the "annual produce of land and labour?" And how is labour itself the "annual produce of land and labour?" Thus, you see that Smith has already broken away from the dogma of the economists, who carefully excluded labour from the term wealth.

After, for several hundred pages, filling the minds of his readers that wealth is simply the produce of land and labour, he admits that unless a thing is exchangeable it is not wealth. Thus, after all, he admits that exchangeability is the real essence and principle of wealth.

Further on, under the term "circulating capital," he enumerates bank notes and bills of exchange. Now, bank notes and bills of exchange are credit; they are mere rights of action. Thus you

see that Smith expressly includes credit under the term "wealth," which was what the economists expressly denied.

Now, how are bank notes and bills of exchange—mere rights of action—the "annual produce of land and labour?"

You will thus see that Smith extended the domain of economics: while the economists restricted it to the commerce of the material products of the earth, Smith extended it to include the commerce of labour, which he has discussed at great length. He also admitted that bank notes and bills of exchange are capital, but he never gave any exposition of the great scientific principles and mechanism of the general system of credit. He also says that the object of his work is to investigate the principles which regulate the exchangeable value of commodities.

Thus, you see, that the subject matter of Smith's first two books is, in reality, a treatise on commerce, or the theory of value; and his editor, McCulloch, says in his note, this science might be called the science of Values.

Condillac, who published his work in the same year, calls his first book "*Le Commerce*: or, the Principles of Economic Science."

Forbonnais, who was an eminent contemporary of the economists, published the best treatise on commerce of his day, and he calls it "Economic Principles."

Thus all contemporary writers perfectly well understood that though the economists bent their efforts to free commerce from its impediments, economics itself is the science of commerce or exchanges.

No doubt Smith did immense service to economics by demonstrating that in commerce both sides gain, and by extending its domain; but the fatal defect of his work is that the former part is entirely founded upon labour and materiality as being the essence of wealth, and the latter half adopts exchangeability pure and simple. It is also totally wanting in unity of principle and consistency of doctrine. As has been said, it is wanting in backbone.

Ricardo.

Ricardo was the first economist in this country who perceived the necessity of reducing the laws of value to general principles. He calls his work "The Principles of Political Economy and Taxation." But the part relating to political economy is nothing but a treatise on prices or on value.

But unfortunately it is not a treatise on the complete theory of value, but only on a very small part of it. He deals only with the value of material things, and only with a certain part of them—those only which are the produce of human labour. Having then excluded everything from consideration except material things produced by human labour, he lays down the dogma that labour is the foundation of all value. This doctrine has been repeated by numerous writers, and it is the doctrine, coupled with the incautious statement at the beginning of Smith's work, that the real wealth of a country is the "annual produce of land and labour," which, as the Socialists themselves allege, is the foundation of their system. They constantly maintain that working men are the creators of all wealth.

Considering the enormous importance which the subject has acquired, it is necessary to examine the truth of the doctrine that labour is the cause of all value.

Labour certainly is associated with value in some material things, but is it associated with value in *all* material things? I have already shown you that the space of ground upon which a great city is built has enormous value, but is that value the result of labour?

Look, again, at the great cattle of the field, and flocks and herds of all sorts; they are wealth, but are they the creation of human labour?

McCulloch says that if an object is the free gift of nature it cannot have the smallest value.

Test this doctrine by facts. In the Midland counties of England there are many oak trees which are worth £100 as they stand on the ground before anyone has touched them. Is their value due to labour? It is stated that in 1810 an oak tree was cut down at Gelenas, in Monmouthshire, the wood of which sold for £670, and the bark for £240. Was that value due to human labour?

Some years ago a whale was cast ashore on the beach of the Firth of Forth, and it sold as it lay there for £70. Was its value due to labour?

Some years ago it used to be the fashion for European ladies to imitate their swarthy sisters of Central Africa, and pile huge mountains of hair, termed chignons, on their heads. While this rage lasted a young girl's hair sold for £5, £10, and £20, and even much higher sums. Was the value of the girl's hair due to labour?

These and innumerable other cases which might be cited show that it is utterly erroneous to assert that labour is the cause even of the value of material things.

But labour itself has value. If, then, labour is the cause of all value, what is the cause of the value of labour?

Again, take a Bank of England note, or a great merchant's acceptance for £1,000. It has value. But is its value due to labour?

When a banker discounts a bill for a customer, he gives him a credit in his book for it—that is, he buys one right of action by creating another right of action, and by so doing he gives value for it. Is the value of the banking credit due to labour?

As the strict logical conclusion of his doctrine that labour is the cause of all value, Ricardo maintains that air, heat, and water add nothing to the value of the crops. If this doctrine be true, it would follow that if we were to plant a vineyard in Shetland, the grapes, if they ever appeared, and the wine made from them,

would have exactly the same value as the grapes and the wine produced in the vineyards of sunny France.

I am not aware whether any of those whom I have the honour of addressing have ever paid much attention to the doctrines of Ricardo. By some persons, indeed, he is regarded as an authority not to be questioned; but when I bring these doctrines plainly before you in the light of day, I feel sure that you, as men of business, will perceive that they are entirely erroneous.

Why has a bank note or a bill of exchange value? Because it is exchangeable—because it will be paid at the proper time. I have already shown you that the author of the "Eryxias" saw that money only has value when it is exchangeable. A bank note and money, then, have value for exactly the same reason—because they can be exchanged away for other things.

Why have cattle, flocks, herds, timber trees value? Because there is a demand for them. If all persons were to become Vegetarians, the value of cattle, herds, flocks, &c., would at once die off. What gives value to the vineyards of France, California, and Australia? The demand for wine. If the whole world were to become teetotallers, all value would at once die off from the vineyards of France, California, and Australia.

Thus you see that it is utterly erroneous to assert that labour is the cause of all value. Value manifestly proceeds from demand. All the labour in the world cannot confer value on anything when there is no demand for it. If all the warehouses in Manchester were groaning with goods, and no one came to buy them, where would their value be?

You will at once perceive the importance of these obvious truths; for they at once cut away the ground from that dreaded Socialism which is such a disturbing force at the present day. Read their own utterances, read that mass of incomprehensible jargon Karl Max's "Capital," and you will see that all the claims of the Socialists are founded on the exploded doctrines of Smith and Ricardo—that labour is the cause of all value, and that

working men are the creators of all wealth. Is it working men who create the great cattle of the field, or the trees of the forest? Did working men create corn, or did they make it grow? Did working men create the great sciences which have done so much for mankind, and by which so much of their labour is directed? Did working men create the skill of our advocates, or physicians, and other professional men? Did working men create the skill, and the foresight, and the personal credit of our great merchants and bankers, by whom the infinitely greater part of modern commerce is carried on?

The very labour of the working man himself has no value unless there is a demand for it.

Thus you see of what supreme importance it is to rectify the fundamental ideas of economics, and what boundless mischief rash statements produce when repeated by incautious men.

The last writer I need cite here is Whately. In his lectures as professor at Oxford, he points out the inconvenience of the name of political economy. He points out that Smith's name for his work only indicates the subject matter, and not the science itself. He points out that it has only to do with things so far as they are subjects of exchange. He therefore proposed to designate it as Catallactics, or the science of exchanges.

You will now observe that up to this time it was perfectly well understood by all economists that, as a positive science, economics is the science of commerce, or of exchange, or the theory of value. The expression *production, distribution and consumption of wealth*, was an extremely awkward one, but still its originators clearly explained that they meant nothing but commerce or exchange by it. Numerous other writers had simply defined it as the science of commerce; and so long as there was a general agreement as to its fundamental nature there was good hope of progress, because the ideas of its founders could be expanded, modified, developed, and rectified.

It is well known that almost every one of the other great sciences, Astronomy, Optics, Heat, Chemistry, and so on, have undergone great revolutions of opinion, modification, rectification, and expansion, and have thus been progressive sciences. And so it might have been at the present day with economics, if economists had steadily kept in view the original conception of the science. The first school of economists considered only the commerce in the material products of the earth. Adam Smith devoted great attention to the commerce of labour, but with the exception of a few perfunctory remarks on bank notes and bills of exchange he does not seem to have the slightest idea of the magnitude and importance of the commerce in rights, which is the most colossal branch of commerce at the present day, and includes the whole principles and mechanism of credit, banking, and the foreign exchanges.

Now you will at once perceive that so long as it was clearly understood that economics is the science of commerce in general, it was perfectly easy to introduce any new branch of commerce which had not been fully developed.

Now, if the early economists had reflected on the nature of the commerce in rights, if they had observed that Smith himself classes bank notes and bills of exchange as circulating capital, they would have seen that exchangeability is the sole essence and principle of wealth; they would have seen the absolute necessity of discarding labour and materiality as necessary to value; and they would never have given rise to Socialism by maintaining such erroneous doctrines.

It is quite evident that under the general term of commerce it is quite as easy and natural to treat of the commerce of rights as to treat of the commerce of material products or of labour.

The Second School of Economists.

Unfortunately, an economist of the highest distinction introduced a fatal change in the fundamental conception of the science,

which has thrown it into utter confusion, and has arrested its progress up to the present time, but from which all the most independent economists in the world are now emancipating themselves.

All interest in political economy died out among our bright but fickle neighbours in 1776, when Turgot was driven from power. Condillac's work, which was published in that year, never attracted the slightest attention.

In 1803, J. B. Say published his first treatise on political economy, in which he defined it as the *production, distribution, and consumption of wealth*, but unfortunately he quite departed from the original meaning of that expression, which was one and indivisible, and meant nothing but commerce or exchange.

J. B. Say broke up the expression into its separate terms, and completely changed the original meaning of production and consumption; for while the original meaning of production was offering for sale, and *consumption* meant simply purchasing, J. B. Say used production to mean adding value to anything and consumption to mean the destruction of value. He also has separate and independent chapters on production, distribution, and consumption.

Now, if you will think for an instant, you will see that so long as you retain commerce as the fundamental concept of economics, it is a positive, distinct, and intelligible science, the fundamental law of which is the law of value. But when you break it up into three parts, you will see that it becomes utterly unintelligible as a distinct science. It breaks the back of the whole science: it utterly breaks the back of the theory of value.

I will now show the awkwardness of adopting that view of the science.

Say himself designates instruments of credit, such as bank notes and bills of exchange, the funds, the copyright of a book, a professional practice, &c., as wealth.

Now, how is it possible to talk of the production, distribution, and consumption of bank notes, bills of exchange, the funds, a copyright, or a professional practice? But it is quite usual to buy and sell them.

J. B. Say has earnestly enforced the doctrine that abilities of all sorts are wealth. He terms them immaterial wealth.

How is it possible to talk of the production, distribution, and consumption of human abilities? But they have a value which is measured in money. It is quite usual to speak of the supply and demand of labour.

J. B. Say's work has for nearly half a century moulded the Continental view of political economy, and most of the usual manuals and treatises are little more than adaptations from it, with little variation.

Among others, M. Say has in a general way moulded the form of Mill's treatise, though no doubt he varies from him to a certain extent.

Mill treats political economy as the production, distribution, and exchange of wealth. Now, in the original language of the economists, that is simply exchange and exchange.

Mill's book, which, in a modified form, introduced Say's system into England, was published in 1848, and was immediately received with unbounded applause, and was supposed to have brought political economy to its highest pitch of perfection; and for many years it was considered to be as futile to criticise Mill as to criticise infallibility itself. Whatever Mill asserted was to be at once accepted without doubt or question.

Now, Mill is a professed writer on logic, and we should naturally expect that so distinguished a logician would at least be consistent with himself.

In an eloquent passage in his logic he shows the prime necessity of settling the fundamental concepts of a science. We might naturally expect, therefore, that he would take especial care to settle the definitions of economics, especially such a deeply-con-

tested one as wealth. After the very first paragraphs of his work it is, therefore, rather surprising to read, "Every one has a notion sufficiently correct for common purposes of what is meant by wealth;" and he says, "It is no part of the design of this treatise to aim at metaphysical nicety of definition where the ideas suggested by a term are already as determinate as practical purposes require."

Let us now see whether Mill himself has any clear idea of what wealth is. A little further on he says, "Everything forms, therefore, a part of wealth which has a power of purchasing." Here at last, after 2,100 years, we have exactly Aristotle's definition of wealth, which ancient writers held unanimously for 1,300 years—that everything which can be bought and sold, or whose value can be measured in money, is wealth. This definition manifestly includes all the three orders of exchangeable quantities: (1) material things; (2) personal qualities, both as labour and credit; and (3) abstract rights.

But at the end of the same remarks he says, "The production of wealth, the extraction of the instruments of human subsistence and enjoyment from the materials of the globe." Is not that a very startling change of conception? Is everything which can be bought and sold extracted from the materials of the globe? Are personal qualities, are bank notes, bills of exchange, personal credit, and banking credits extracted from the materials of the globe?

After going on for more than fifty pages, Mill comes to productive labour, which, he says, is labour productive of wealth; and then it suddenly strikes him that he has at last to inquire what wealth really is.

He then says that it "is essential to the idea of wealth to be susceptible of accumulation," and that permanence is necessary to wealth. Now, here is at once another change of idea, and it at once excludes labour from the term "wealth." Labour perishes in the very instant it is performed. We can accumulate the pro-

ducts of labour, but we cannot accumulate labour itself; or at least, the only person who could probably accumulate labour itself would be the Philosopher of Laputa, who bottled sunshine.

When the idea of permanence is introduced into the notion of wealth it at once becomes altogether vague and uncertain. Things are of all degrees of permanence, from the land which lasts for ever to things of a constantly-diminishing degree of permanence, such as money, jewelry, houses, clothes, food, till we come to labour. At what degree of permanence is the line to be drawn between things that are wealth and those that are not wealth?

The *law of continuity* says, "That which is true up to the limit, is true at the limit;" which shows that labour, which has the least degree of permanence, must be included under the term wealth equally with land, which has the greatest degree of permanence.

We have now to examine more particularly Mill's doctrines upon credit.

He says that anything which has purchasing power is wealth.

He then says, "The amount of purchasing power which a man can exercise is composed of all the money in his possession or due to him (*i.e.*, any bills or notes he may have), and of all his *credit*.

"Credit, in short, has exactly the same purchasing power with money."

And many other passages to the same effect.

Now, if it be said that "everything which has purchasing power is wealth," and if it be said "credit is purchasing power," then the necessary inference is that "credit is wealth." That is a syllogism in which Mill is safely padlocked, and from which there is no escape.

Thus, by the clear admission of Mill, credit is wealth; and how is credit material, or extracted from the materials of the globe?

Now, there are numerous other self-contradictions in Mill as to the nature of wealth, but those which I have given are quite sufficient to show you that Mill himself had no clear ideas as to what wealth is.

I have now taken only one of the definitions of economics, but that the fundamental one, and shown you the self-contradictions of economists from Smith to Mill. And how can you expect a solid system of science to be founded on such self-contradictions? But there, in fact, 27 definitions in economics, and with respect to each one of them there is exactly the same self-contradiction and diversity of opinion.

No doubt the disciples of Smith have achieved a series of great successes, but these have been chiefly destructive. to sweep away what they considered mischievous laws; and everyone can agree upon that, but when it comes to a positive definite science the case is wholly different.

The fundamental defect of economists, from Smith to Mill, is that they profess to discuss wealth and the science of wealth. They consider the production, distribution, and so on of wealth, but they are unable to form a distinct and clear idea of what wealth is. Is it not surprising that writers who perfectly admit that personal credit, bills, and notes are wealth and capital in some places, in others allege that all wealth is the produce of land and labour, and extracted from the materials of the globe?

Some of the manuals in popular use begin by admitting that wealth is anything that is exchangeable, and then in a few sentences after they say that all wealth is the produce of land, labour, and capital. They themselves admit that labour itself is an exchangeable commodity. They admit that personal credit is wealth; and how is labour itself and how is personal credit the produce of land, labour, and capital?

There was a time when the physical sciences were exactly in the same state as economics is at present. They were simply a mass of confusion and contradictions. The wisest moral

philosopher of antiquity, seeing that all the professors of the physical sciences were at utter discord with themselves, called off his disciples in blank despair from the study of physical science, and bade them restrict themselves to moral science.

But if Socrates were to revisit the earth now, would he be of the same opinion, and how has physical science been brought to its present state of perfection? Simply by a careful settlement of its definitions, a diligent observation of facts, and a sedulous attention to bring language into harmony with nature, and economics can only be delivered from the present disrepute into which it has notoriously fallen, by strictly following the same methods by which the modern physical sciences have been created.

And I will cite the authority of Mill himself for this view. He says, very justly, "In the case of so complex an aggregation of particulars as are comprehended in anything which can be called a science, the definition we set out with is seldom that which a more extensive knowledge of the subject shows to be most appropriate. Until we know the particulars themselves, we cannot fix upon the most correct and compact mode of circumscribing them with a general definition.

"Scientific definitions, whether they are definitions of scientific terms or of common terms used in a scientific sense, are almost always of the kind last spoken of; their main purpose is to serve as the landmark of scientific classification. And since the classifications of any science are continually modified as scientific knowledge advances, the definitions of the sciences are constantly varying. . . What is true of the definition of any term of science, is of course true of the definition of the science itself; and accordingly *the definition of a science must necessarily be progressive and provisional.*"

Is it possible to have anything more exactly appropriate to the present case. Those who still adhere to the definition of economics as the production, distribution, and consumption of wealth,

entirely forget that that definition was expressly restricted by its originators to the commerce of the material products of the earth and to those only. They expressly excluded labour and rights from the term wealth. They, therefore, only considered one class of economic quantities and only one kind of exchange.

But all modern economists now admit labour and rights to be wealth, in accordance with the unanimous doctrine of ancient writers, and the complete science treats of three orders of exchangable quantities and six species of exchange.

The fact is that economics has burst the bonds of the physiocrate nomenclature—a definition which suits the exchange of material products only becomes unintelligble when it is stretched to include labour and rights. The attempt of economists to discuss these subjects while retaining the old definition was hopeless, and only led to confusion. It was like putting new wine into old bottles. The fundamental concepts of the physiocrates will no more fit economics in its present enlarged state than the clothes of an infant will fit a full-grown man. As economics now embraces all commerce, we must, in strict accordance with the above extract from Mill, entirely reject the narrow and restricted definition and adopt the enlarged one of commerce, which includes all exchanges. And when we do that it is like the transformation scene in a pantomime. Harmony, order, and science are evolved out of incomprehensible chaos as from the stroke of the enchanter's wand.

On the Best Name for the Science.

Having then, I trust, satisfied you that there is a positive definite science of commerce or exchanges, we have next to determine what is the best name for it. The term "Political Economy" has undergone many changes of meaning since it was first invented. But at last, it having been appropriated in popular

use to the production, distribution, and consumption of wealth, and this expression having been shown to be equivalent to commerce or exchanges, a large body of economists have defined political economy as the science of exchanges. But there is a general dissatisfaction among economists with such a name, because it naturally suggests the idea that it has something to do with politics; whereas all economists are agreed that it is entirely independent of politics and forms of political government. Various other designations have been proposed. Whately proposed *Catallactics*. That, no doubt, exactly expresses its meaning. Others have proposed *Plutology* or *Chrematology*. Such names as these, however, would not be readily accepted, and it is not expedient to deviate too far from popular use. Economic science is so firmly rooted in the public mind that no advantage could be got by changing it. Moreover, it exactly expresses the nature of the science. Because οἶκος in Greek is absolutely synonymous with πλοῦτος and χρῆμα. It is sometimes supposed that οἶκος in Greek means a house, and that an economist is the master of a house. But οἶκος has a much more extensive meaning than that of a house only. Throughout the whole range of Greek literature, from Homer to Ammonius, οἶκος means property or estate of every description. It includes not only houses, lands, money, and all material things, but also all such property as debts, bank notes, bills of exchange, the funds, shares in commercial companies, copyrights, patents, &c. It is the technical term in Attic law for a person's whole property or estate of every description. The word "economy" is more usually appropriated to ideas of thrift or parsimony. I therefore proposed to term it *Economics*, which has a little peculiarity to distinguish it, and yet does not differ in any way from popular usage. And I am happy to say that this suggestion is now meeting with very general acceptance. Wherever you turn now the term economics meets your eye. Economics, then, is simply the science of exchanges, or commerce in its widest extent, and in all its forms and varieties. It is the theory of value.

I myself have offered this definition—*Economics is the science which treats of the laws which govern the relations of exchangeable quantities.*

And M. Michel Chevalier did me the honour to say that he thought that was the best definition which had yet been proposed.

I venture to hope, then, that this name will meet with your approbation, and that you will also adopt the name of economics for the science of commerce.

Economics is a Physical Science.

We now, then, perceive how economics is a physical science. One of the most distinguished physical philosophers of the day expressed to me a doubt that economics is a physical science. But that all depends upon its fundamental conception and definition. So long as it was termed the "Production, Distribution, and Consumption of Wealth," there was nothing in the name or the nature of the subject to suggest any resemblance to a physical science; but as soon as we adopt the alternative and equivalent definition of the science as the science of commerce or exchanges, it is at once seen how it is a physical science, because there being *three* orders of exchangeable quantities, and therefore *six* species of exchanges, the object of the science is to discover the laws of the phenomena of these exchanges — that is, to determine the laws which govern their numerical relations of exchange. We have, in fact, a new order of variable quantities, and the laws which govern this new order of variable quantities must be in strict harmony with the laws which govern the relations of variable quantities in general. The laws which govern the variable relations of economic quantities must be in strict harmony with the laws which govern the varying relations of the stars in their courses. Like astronomy, economics is a pure science of ratios.

It is thus seen that economics is a distinct body of phenomena all based upon a single idea. Another great body of particulars is

won from the vague, floating, and uncertain mass of knowledge—won from the void and formless infinite—and fixed and circumscribed by a definition which separates it from all other bodies of phenomena, and is therefore fitted to form a great demonstrative science of the same rank as mechanics, astronomy, optics, or any other physical science.

Thus it is clearly seen to be a physical science; but it is also a moral science, because its laws are based upon the *mores*—the ἤθη—of men. For we find that the same general laws of exchange or the principles of commerce hold good among all nations, among the rudest and the most civilised in all ages and countries. The laws of commerce are identically the same to-day as they were when commerce first sprang into being, and they will remain so to the end of time. The laws of commerce, said Edmund Burke, are the laws of Nature, and therefore the laws of God. That is why economics is a physical science, because it is based upon principles of human nature, which are as universal and as permanent as those upon which the physical substances are based. And therefore economics is a physical moral science, and the only moral science which is capable of being raised to the rank of an exact science.

MANCHESTER STATISTICAL SOCIETY.

Technical Education.

By J. H. Reynolds.

Read May 25th, 1887.

The words of Mr. John Morley, in his speech to the members of the Cobden Club on Saturday week, may not inaptly preface an address on Technical Education. Expressing his belief, whilst admitting that there was depression in industry, that the community was literally and economically sound, he admonished his hearers that if they desired that Great Britain should hold her own in competition with the world they must, amongst other things, conform to two Cobdenic precepts, namely, 1st, attend to your own people, and make them as skilful and industrious as you can; and, 2nd, push your commerce with more energy, more enterprise, more flexibility, more adaptability than before.

This strikes the key-note of the question, which is more and more engaging the attention of legislators, scientific men, educationists, and, last and most important of all, traders and manufacturers. When the producers and distributors agree in the absolute need for scientific knowledge and technical training, especially for all who are engaged in the industries which have made Great Britain pre-eminent amongst the nations, then, and only then, will the problem have been solved, How shall the great industrial army be trained, informed, and organised?

It seems to be generally agreed that the unrivalled supremacy of this country as a manufacturing and commercial nation has been mainly attributable to—

1. The abundance of our material resources in iron, coal, lime, and other minerals of prime importance lying in close contiguity.

2. Our insular position, giving us ready access to the markets of the world.

3. Our freedom from civil strife and invasion, and the absence of conscription.

4. Our enlightened fiscal policy.

5. The advantage of a climate peculiarly favourable to industrial pursuits, and the natural ability, splendid enterprise, great energy, and inventive skill of the people.

6. The commercial advantage derived from our great colonies and crown possessions.

It may naturally be asked how is it, that, with all these advantages, there should be so loud an outcry that the trade of the country is diminishing, that Continental nations and our brethren across the Atlantic successfully compete with us in certain great branches of industry, and threaten to drive, if they have not already driven, us from our hitherto unquestioned position as the manufacturing nation of the world.

We have been the pioneers in the industrial development which has given the nineteenth century, and especially the Victorian era, a peculiar significance, and marked it as an epoch in the evolution of the race.

Our efforts to monopolise the markets of the world have been met by hostile tariffs, which, whilst they have served to stimulate the energies of our people, to quicken their inventive faculties, to provoke efforts to minimise the cost of production, have nevertheless been in a large degree successful in restricting or preventing the consumption of British goods over the greater part of the European Continent and in the United States of America.

This method of defence against industrial competition is but a crude and mechanical one, and cannot in the long run win against intelligence, skill, and organisation, however effective it may be for the time. Our foreign competitors have therefore had the foresight

to see that the ultimate victory will not be the result of a war of tariffs, but will rest with that nation which applies to industry the methods, discipline, knowledge, and organisation which characterise the great achievements of science.

Just as the hard conditions which the great Napoleon imposed upon the Prussian nation after the battle of Jena, which were intended to cripple her for ever, were the mainspring of a policy which resulted in making of her a nation of soldiers, and the inspirer of the splendid organisation, equipment, and skill which saw its final triumph in the occupation of Paris in 1871, so the leading men of the various German States realised that if their people were ever to rival the supremacy of England in the great industrial warfare, it must be by the adoption of similar methods.

Hence the determination successfully carried out to lay the foundation of a broad and liberal system of elementary education, which should secure for every child the fundamental elements and instruments of knowledge and keep him compulsorily at school till the age of at least 14 years. This wise policy, long ago initiated, has made it possible to create and organise that marvellous network of Classical, Scientific, and Technical Schools and Universities which have made the German people the best educated nation in Europe, and the cost of which has been and is ungrudgingly borne, because the fruitful results are felt to be beyond all question, and essential to the well-being and progress of the nation.

We have been long in waking up to a true application of the conditions in virtue of which we can alone hope to maintain or win back our commercial supremacy.

Torn by sectarian jealousies, we have made education the battle-ground of parties, robbed generations of their birthright, and deprived them of the power to become useful and honourable citizens. We have been content to fill the gaols when we might have filled the schools. Despite the great results flowing from the wise and beneficent Act of 1870, we have not yet succeeded in securing for every child so much as is implied by an elementary

education, whilst of those who leave the schools many thousands never get beyond the III. and IV. Standards, and forget within three or four years all they have learned.

It is utterly idle to expect that until the ground is thoroughly prepared—until, in short, the whole population is brought under the influence of a sound and practical elementary training—any national scheme of higher education for the benefit of the capable of every class can be established.

The age up to which a child shall attend school requires to be increased, the standard of exemption should be raised, wherever practicable, and where exemption is permitted, provision should be made for the compulsorily continued education of the youth in evening classes—until, in fine, the highest prescribed standard be passed. But, just as the old mechanics' institutes failed in their efforts "to teach the working classes the principles of the arts they practice" because the said working-classes were ignorant of the A B C of knowledge, so will the Technical Schools fail, as many now do, to fulfil their true functions by reason of the ill-prepared educational condition of their students. We want an educational organisation in all our great centres, such as may be found in the best type of American cities, which will take the surveillance of all matters pertaining to education, and which will direct and bring into organic and harmonious relation all the various agencies which exist for the education and training of the people, so that it may be possible to realise the ideal of Professor Huxley, who would fain see exist an educational ladder whose foot shall rest in the gutter, and up the rungs of which the capable youth may climb until he reaches the University.

From this point of view the elementary school would exist not as an end, but as a means; it would be the vestibule to inner chambers, where the pupil would find opportunities of education and training suited to his capacities and his aims. Since the foundation of a wise and completely-organised system of education suited to the wants of each great centre must rest on the elementary

school, it would appear desirable that the latter should no longer be worked as part of a cast-iron system directed and controlled from Whitehall, but should be adapted to meet the special requirements of each large district, the educational authorities of which would be the best judges of the courses of study it was most desirable to encourage and provide for. We want Home Rule in educational matters, however much we may differ as to its desirability in matters political, because we desire variety, and the opportunity of experiment. This is a vast mechanical, chemical, and commercial district. The whole of its great population, with rare exceptions, will have to earn its bread in the pursuit of these and allied industries. Obviously, therefore, our schemes of education and methods of training should keep in view the manifest destiny of the scholars, and prepare them accordingly. Mathematics, drawing, chemistry, physics, mechanics, and foreign languages would be the commonplaces of such a training.

The demand for technical education has been growing ever since the Great Exhibition of 1851 demonstrated the great inferiority of English manufacturers in the art of design, and which led, under the enlightened guidance of the Prince Consort, to the establishment of Schools of Art in all the chief centres of industry, the good influence of which was plainly evident at subsequent exhibitions in the enormous advance made in the beauty of form and decoration of English pottery, glass, and furniture. Our mechanical superiority was no less manifest, with the result that foreign nations, profiting by the lesson, covered Europe with schools and colleges for the training of chemists and engineers, in the hope that they could successfully oppose to our abundance of raw material higher science and greater skill in the manipulation of it, and have so far succeeded in their endeavours that we, late in the day, are now seeking to follow in their footsteps. The valuable and exhaustive report of the Royal Commission on Technical Education during the years 1882 and 1883, of which two of our own townsmen, Mr. John Slagg, M.P., and Sir H. E. Roscoe, M.P.,

were prominent members, opened the eyes of the country to the extraordinary strides made by foreign nations in Europe and America, and has intensified the demand for the establishment in this country of like means of training, modified by our special circumstances.

What, then, is technical education, and what form ought it to take so as to be of the greatest benefit to the industrial development of this nation? To use Huxley's expressive phrase, it is "the marriage of Science with Industry," or, as he expressed it when addressing the Working Men's Club and Institute Union in 1871, "Technical education means that sort of education which is specially adapted to the needs of men whose business in life it is to pursue some kind of handicraft."

Scott Russell, the eminent designer of the Great Eastern, who, by his education, training, and practical experience, was peculiarly fitted to speak with authority on this subject, defines technical education in his book on "Systematic Technical Training," written twenty years ago, as "that special training which renders the talent of the educated man directly useful to society, and which will make the new generation of Englishmen excel the new generation of foreigners in the coming rivalry of race and nation;" and lastly, Mr. Slagg speaks of it as "that special education which has superseded apprenticeship in certain foreign countries, and raised up a class of highly-skilled workmen able to hold their own against the best English workmen."

No two persons will agree precisely in their definition. One will seek to emphasise the theoretical aspect of technical training in its application to industry, and another the practical. One will desire to have a good deal of the workshop in the school, and another to introduce the school into the workshop. But whatever be the view the object is the same, namely, to bring organised knowledge to the aid of the craftsman. The old-fashioned system of apprenticeship, whereby a lad might learn the whole art and mystery of his trade, has almost

entirely passed away, and its place is taken by the system known as division of labour, by which a youth learns only a very small part of his business. It sounds almost like an anachronism to read an advertisement in the Manchester papers of last week in which a tailor warns his fellow-tradesmen against employing a certain runaway apprentice of his. In our great machine shops it is almost impossible for a lad, except he be a premium apprentice, to attain anything but the merest smattering of his trade. Year in, year out, he may be found filing nuts or any other similar monotonous job. He is kept at the same bench, and of any other of the multifarious operations going on about him he learns almost nothing, and the drawing office is an unknown and unexplored country to him. Did all employers emulate the enlightened policy of a few of their number, and make it a condition of employment that apprentices must attend evening classes in drawing, the principles of mechanism, and in elementary mathematics and physics, the problem of technical education would be easier of solution as far as the artisan is concerned.

An enormous stimulus would be given to the study of science in relation to industry, if employers of labour and the trades unions made it known that they are prepared to encourage and regard with favour the apprentice who seeks to supplement his skill as a workman by attendance on evening classes bearing upon his trade.

In all the chief towns a large number of students are in attendance at the art, science, and technical classes, yet, though the number is on the increase, it is not satisfactory, compared with the artisans employed and needing instruction.

The continuance and extension of the system of technological examinations (founded by the Society of Arts, and transferred to the City and Guilds of London Institute in 1879) have been of the greatest service in promoting the cause of technical education. The institute is supported by the Corporation of London and thirty-six of the London guilds, who, from its inception in 1879 to

the end of 1885, have subscribed the sum of £221,266 5s. for its support. Out of these funds the Central Institute, in Exhibition Road, has been built, at a cost of £100,000; Finsbury Technical College, at a cost of £35,000; and the South London School of Technical Art, at a cost of £2,256. The net expenses of these institutions, in the year 1885, after deducting students' fees, were respectively as follows: £6,548 17s. 8d., £5,716 9s. 2d., and £1,122 18s. 4d. Other metropolitan institutions were subsidised to the extent of £1,475, and grants were made to provincial institutions of £800, including one to Manchester of £200. The general charges for administration were £2,263 13s. 11d., and for scholarships £19 17s. 10d., making a grand total of net expenditure for the year of £21,443 1s. 1d.

The object of the Central Institution is to give London a College for higher technical education, in which advanced instruction shall be provided in those kinds of knowledge which bear upon the different branches of industry, whether manufactures or arts.

The Institution is intended to afford practical, scientific, and artistic instructon which shall qualify persons to become—

(1) Technical Teachers;

(2) Mechanical, Civil, Electrical, Chemical, and Sanitary Engineers, Architects, Builders, and Decorative Artists;

(3) Principals, Superintendents, and Managers of Manufacturing Works.

The Technical College, Finsbury, has for its objects the education of—

(1) Persons of either sex who wish to receive a scientific and practical preparatory training for intermediate posts in industrial works;

(2) Apprentices, journeymen, and foremen who are engaged during the daytime;

(3) Pupils from middle-class and other schools who are preparing to enter the Central Institution.

In 1885, no fewer than 6,396 persons were enrolled in the registered classes of the Institute, of which number 3,271 were examined, and 1,670, or 51·1 per cent, passed in 33 subjects of examination at 167 centres. In addition to these, 697 persons not registered members of classes connected with the Institute were examined, and 498 passed, or 71·5 per cent, in 39 subjects. The cost of examination, including grants to teachers, was, in 1885, £3,496 4s. 2d. The subjects of examination include all the principal manufacturing industries of the kingdom. The subjects attracting the highest number of students to the examination were—

Mechanical Engineering	728
Cotton Manufacture	633
Weaving and Pattern Designing	496
Carpentry and Joinery	391

The Central Institution is the only Technical College in the kingdom of the first rank, and is a type of what should be found in every great industrial centre, such, for example, as Lancashire. We have in the Owens College a means of technological teaching of the highest class, and when the Beyer Engineering Laboratory is completed its resources will be much enhanced, but it is not organised so completely, nor, apparently, with so direct a practical aim, as the College of the City and Guilds of London Institute. The Yorkshire College at Leeds may fitly compare with it, and is nobly endowed and equipped, chiefly through the liberality of the London Guilds, for advanced technical instruction in mechanical engineering, dyeing, and weaving.

The college built by the Institute in Finsbury is largely attended, especially by evening students, and is an example of a college of the second rank, of which there are excellent types at Bristol, Nottingham, Bradford, and Sheffield.

Such colleges as these should exist in every considerable town, with the object of giving scientific and technical instruction in the

chief local industries, and encouraging the desire, and making it possible, to establish new ones.

Besides these there are to be found at Huddersfield, Leicester, Preston, Keighley, Oldham, Glasgow, Edinburgh, Manchester, and other towns, technical schools, less completely fitted and organised, attended by large numbers of students. It is a noteworthy and encouraging sign of the times, that the generosity evoked by the desire to worthily celebrate the Jubilee of the Queen's reign has in many neighbouring towns taken the form of proposals to erect and equip Technical Schools, and there seems little doubt that in a year or two every important town of the two counties will possess a school, fully equipped, where science and artistic design will be sedulously cultivated, and their principles closely applied in aid of the development and successful promotion of its trade and industries. Even then we shall not have equalled the efforts which some countries have made to secure for themselves pre-eminence in industrial pursuits. In this connection the town of Chemnitz stands almost, without rival. In 1864 it had nearly 55,000 inhabitants, to-day it has upwards of 100,000. It has spent no less a sum than £240,000 upon schools, of which £95,000 has been contributed to the higher schools by the state, and the zeal of the people may be estimated when it is known that the Technical Schools of the town have cost £88,000. This, the chief manufacturing town of Saxony, no larger, and certainly not wealthier than our own neighbouring town of Oldham, possesses not one, but eight Technical and Trade Schools, viz.,

1st. The Royal State Technical Institution, comprising

(*a*) The Higher Technical School.
(*b*) The Royal Builders' School.
(*c*) The Royal Foremen's School.
(*d*) The Technical Drawing School.

2nd. The Higher Weaving School.
3rd. The Hosiery School (at Limbach).

4th. The Agricultural School.
5th. The School for Handweavers.
6th. The School for Tailors.
7th. "Fortbildung" (continuation or trade school for males)
8th. Ditto (ditto for females)

The varied character of the technical schools here enumerated, existing in one town, reveals the diversity which exists in the trades of the town, and further inquiry shows that just as the general trades are varied so the weaving industries include almost every class of plain and fancy goods. We have in this state of things a suggestive lesson for the "one-horse" towns of Lancashire, which depend mainly upon one class of goods and sometimes upon one market for their existence. Chemnitz, by its wiser policy, helps to secure itself against those waves of depression or change of fashion from which no industry is free. It is worth while to state here that the members of the Royal Commission, in conversation with employers and foremen, found that the importance of the weaving school of Chemnitz was everywhere acknowledged, and that its influence upon the manufacturing industries of Saxony could not be too highly estimated. There was not a fancy manufacturer in the town whose son, assistant, or manager had not attended some of the classes.

The head of one of the largest manufacturing firms of Saxony, who takes the practical management of the business, had studied designing and weaving at Lyons. Conspicuous in his office were some remarkable examples of silk weaving, in which the designing, setting of the cards in the loom, and the weaving of the fabric were done by his own hands. He had studied chemistry at a polytechnic school, and visited and worked at some of the chief dyeworks and factories in England. He showed to one of the commissioners a large book, containing plans of some of the most modern and complete mills and dyehouses in

Yorkshire, with the arrangement of the shafting, machinery, &c. These details had been transcribed by him from a small note-book, in which the particulars were entered at the time of his visits. He declared that his knowledge of drawing and general mastery of detail were due entirely to the technical education he had received. The products of his firm were very varied, including all kinds of dress and fancy goods in cotton, silk wool and jute, and in combinations of these materials. Nearly the whole of the products of the factories were exported to England and America. The firm buy worsted yarns and warps in Bradford, cotton yarns in Manchester, pay carriage and import duty, weave them into fancy goods, finish, make them up, and pay carriage back to London, Manchester, and Bradford, selling them in the very centres of competition. It was alleged as one reason why these goods are sold so extensively in England that similar goods are not made in England. Their manufacture necessitated superior skill in designing and weaving, and a varied and technical knowledge of dyeing; and the manufacturer stated that these requirements, through the influence of technical schools, had been carefully attended to and mastered in Chemnitz, but had not received at that time the same attention in competing towns in England. He feared that England was awakening, and, if so, it would be so much the worse for him.

This conviction of the value of technical training in science and artistic design, and this enthusiasm for technical instruction, is fully shared in Crefeld, in Rhenish Prussia, a town of 83,000 inhabitants, having a trade in silk goods of the annual value of £4,200,000, exceeding considerably in value the total exports of silk goods from the United Kingdom, and in which a splendidly equipped Weaving, Dyeing, and Finishing School, costing £42,500, jointly contributed by the manufacturers, the municipalities, and the state, has been established. One of the promoters significantly remarks, "It does not follow that the establishment of this school will render us independent of outside sources for designs or new

ideas. We do not expect it. But, to say the least, it will raise the tone and knowledge of our rising manufacturers and foremen, and very materially widen the field from which the latter class may be selected, by spreading technical education broadcast among the industrious and ambitious artisans."

Herein lies the value of these schools, and however expensive it may be to found and maintain them they are the most fruitful investment the community can make. If material progress and well-being be the measure in any great degree of the happiness of the world, who can estimate the money value of the genius of a Watt? To use the pregnant words of Capt. Galton, F.R.S., "If the expenditure of £100,000 would produce a potential Davy, Faraday, or Wheatstone, he would be cheap at the price." Yet the money is readily spent on an ironclad which goes to the bottom with a touch, and we spend in Manchester, without scruple, on the building and gorgeous decoration of an hotel, a sum which would build and completely equip not less than three technical schools. The latter would tend to bring increased prosperity to the city and district, would help to improve the condition of the workers, and would lead to the establishment of new industries whilst the former is of doubtful advantage to the community and a very questionable expenditure of public money.

The erection of such schools is a joint work. Primarily it is that of the locality itself represented by its manufacturers, merchants, and public authorities, and secondarily that of the State. But it is important that the schools be free from bureaucratic control and their management placed in the hands of men directly interested in their prosperity and with knowledge and experience to guide their special work.

What then is being done in Manchester, the centre of the greatest and wealthiest industrial community in the world, to enable it to rival, not merely the efforts of Continental cities, but the achievements of towns in our own country?

It is impossible to ignore the abundant provision made for the

teaching of elementary science and art by means of evening instruction in the classes of the Manchester School Board and other organisations. These classes meet the needs to a very satisfactory extent of those who, being employed during the day, are at liberty only in the evening, but they cannot be considered either in their organisation, equipment, or scope, as substitutes for a technical school, of which they should be in a large measure the feeders.

The Manchester School of Art, in Cavendish Street, well equipped and organised, and under the guidance of most able masters, is endeavouring to stimulate the artistic faculty amongst us and to train up a race of designers capable of supplying the needs of our manufacturers in the various branches of industry, and it has already achieved substantial success.

What, however, is needed is the establishment of a school or schools analagous to those of Finsbury or Bradford, which shall supply a means of training in connection with our various industries, for all classes of students, both day and evening. Where the son of the merchant or manufacturer, or the clever youth from the elementary school, can receive a special and careful training in the chemical, physical, and mechanical principles pertaining to his future employment before he enters upon the active duties of the workship. The Manchester Technical School is an attempt to supply this need.

It is a development of the old Manchester Mechanics' Institution, to which many of our worthy citizens owe the first impulse of their successful career. The pioneer of some of the best features of our educational and social life, it had largely fulfilled its work, and in 1882, led by its president, Mr. Oliver Heywood, supported by the late Dr. Watts, to whose labours in the cause of education this community owes a debt which it can never fully appreciate or discharge, and other public spirited citizens, it was determined to reorganise it as a Technical School.

A sum of £8,000 was raised to defray the cost of the needful structural alterations, suitable appliances and machinery, and of a competent teaching staff. It was determined to organise a School of Science and Technology, with a department for drawing and design for day and evening students. The school is equipped and arranged as follows:—the large room in the basement is fitted up as a mechanical engineering workshop, and is supplied with an 8 h-p Otto gas engine, a 6in. centre screw-cutting lathe, a double-geared gap lathe and a single speed lathe, 6in. centre, on one bed, a 5½in. centre lathe for hand turning, a 6in. × 8in. slotting machine, a planing machine to plane 2ft. by 3ft., a drilling machine, a grindstone, 24 vice benches, forge, Whitworth's screwing tackle, surface plates and gauges, and appliances for teaching the elements of moulding. On the same floor there is a metallurgical laboratory, with nine wind furnaces, four gas muffles, and one coke muffle furnace, with benches and appliances for 30 students.

A weaving-room is also on the same floor furnished with nine plain dobby and Jacquard looms for hand and power, card-cutting machine, and other appliances. In the basement there are also letterpress and lithographic machines and presses, and a seven-horse vertical boiler for supplying the dyeing laboratory with steam. On the ground floor one large room is fitted with twenty joiners' benches, having a wood-turning lathe on each, and provided with tools in separate lockers for 60 students. Another room is fitted with designing board, having more than 6,000 squares, for teaching the principles of drafting and designing for weaving.

On the first floor there has been placed, through the great generosity of Messrs. Dobson and Barlow, of Bolton, a complete equipment of cotton-spinning machinery, from the carding engine to the mule, all specially designed for the room, and arranged for fine and coarse counts. It is the only cotton machinery plant to be found in England in use for school purposes.

The school contains also a laboratory for dyeing, bleaching, and printing, and two for the study of pure chemistry; having, together, accommodation for 90 students at one time.

The lecture hall is completely fitted with benches for instruction in mechanical and building construction, drawing, and design; and the department of drawing and design occupies a large and suitably-fitted room on the third floor.

The progress of the school is indicated in the following statement of the numbers of individual students, tickets issued, and fees received up to July 31st, during the last four years:—

	Individual Students.	Tickets Issued.	Fees. £	s.	d.
1884	1,429	2,046	1,259	12	5
1885	1,295	2,783	2,010	10	5
1886	2,209	3,091	2,241	11	8
1887 (April 30)	2,466	3,170	2,432	15	2

The grants earned from the Science and Art Department and from the City and Guilds of London Institute were as follows for the year named:—

	SCIENCE. £	s.	d.	ART. £	s.	d.	TECHNOLOGY. £	s.	d.	TOTAL. £	s.	d.
1884	780	8	0	191	7	0	121	0	0	1092	15	0
1885	891	2	0	247	3	0	135	0	0	1273	5	0
1886	943	12	0	330	0	0	143	0	0	1416	12	0

And the following gives a comparative list of the number and class of certificates obtained for successful examination in science from the Science and Art Department:—

	HONOURS. 1	2	ADVANCED. 1	2	ELEMENTARY. 1	2	TOTAL
1883	2	3	37	63	80	168	353
1884	7	14	64	98	221	254	658
1885	2	12	73	163	223	314	787
1886	5	14	133	214	243	422	1031

The school was also very successful at the examinations of last year in the examinations for second and third grade art. Ninety students received certificates in the second, and fifty-four passed in the third grade; three received national book prizes; two received bronze medals, and one a silver medal, together with the Company of Plasterer's first prize of £7 7s. for a design for a plaster frieze. The school also stands first in the kingdom in respect of its successful passes in the technological examinations of the City and Guilds of London Institute during the years 1885 and 1886.

The following is a comparative statement of the certificates, medals, and prizes gained for the past two years :—

	Honours.		Ordinary.		Total.	Prizes.	Medals.	
	1	2	1	2			Silver.	Bronze.
1885...	11	11	46	59	127	£34	5	5
1886...	20	17	46	65	148	£35	3	8

The school is divided into departments, and the courses of study are arranged as follows for day students :—

1. A Manual Training School for boys of 13 years of age and upwards, whose attainments are at least that of the VI. Standard of an elementary school. In addition to the usual subjects of an English education the boys are taught chemistry, freehand and mechanical drawing, the elements of physics, French or German, bookkeeping, shorthand, and in addition, with the object of training their hands and of giving a real grip of materials and processes, they are taught for a total of eight hours per week the use of wood-working tools in a well-appointed workshop.

2. A department of mechanical engineering for youths of 15 years of age and upwards who purpose entering engineering works. Half their time is given to the study of the theory of mechanism, mechanical and geometrical drawing, steam and the steam engine,

chemistry and metallurgy, French or German, and the other half to daily practice in pattern-making and the use of metal-working tools. The course extends over two years, and there is already gratifying evidence of the successful character of the teaching in the fact that some 20 of the boys have entered into engineering works and are pursuing their careers with entire satisfaction.

3. Special courses in chemistry and metallurgy, and in bleaching, dyeing and printing.

4. Art drawing and design applied to furniture, textiles, and surface decoration.

5. Modern languages.

The department for evening students is classified as follows :—

1. Engineering and builders' work for engineers, joiners, bricklayers, masons, metal plate workers, plumbers.

2. Mathematical, chemical, and physical science.

3. Technology of staple industries, in theory and practice, in connection with bleaching, dyeing and printing, cotton spinning, weaving, and design, letterpress and lithographic printing, brewing, breadmaking, oils and fats, oils, colours and varnishes, telegraphy, electric lighting, carriage building, &c.

4. Subjects of commercial knowledge, viz., modern languages, bookkeeping, shorthand, commercial correspondence, technical arithmetic, the geography, and history of commerce.

5. Ladies' work classes—attended this session by upwards of 200 students, for dressmaking, cutting-out, and measure fitting.

6. Drawing and design for embroiderers, textile and wall paper designers, painters and plasterers, modellers, carvers, and art metal workers.

This enumeration of the various departments show the comprehensive nature of the work of the school and the desire of the Council to make it of service to every one of the chief industries of the district, and the figures quoted above are evidence of its satisfactory progress and of the success with which, under many difficulties, it has carried on its work.

The building is now beyond all questions too small for the operations attempted to be carried on within it. Every inch of space is utilised. The experiment, begun nearly four years ago, has proved conclusively that there is a great demand for the teaching and training which the school offers.

If Berlin can spend without grudging £300,000 on a School for Mechanical Engineering, surely the wealthy city of Manchester will not be behindhand in building and maintaining a technical institution which shall be worthy of the city and of the vast industry and commerce upon which its very existence depends. Let it not be afraid of the cost, but take to heart the pregnant words of one of the French officials quoted by Mr. Swire Smith, who, when asked as to the cost of the system of educating the city of Paris, replied he did not know the cost, and he did not trouble to enquire, for, said he "It is not France but England and America who pay for our drawing schools, by buying the beautiful manufactures and designs which the schools have enabled the French people to produce."

This is quite as much a question for employers as for workmen, though it is the latter who have so far mainly taken advantage of the facilities which exist for the study of science and technology in relation to industry. It is not the foreign workmen who excel the English workmen—at least such is the evidence of the Royal Commission—but the foreign employers and managers, who are better educated than ours. In most cases they have been carefully trained in the Polytechnic, are thoroughly acquainted with the scientific principles upon which their trade depends, are masters of a couple of languages besides their own, are alive to every change of fashion, ready to adapt themselves to the requirements of the market, and able to take advantage of every new idea. It is to our shame that it can be said that we are forced to buy from the foreigner six-sevenths of the total consumption of coal-tar colours used in this country—mainly in this district—though the discovery of the process is due to an Englishman, and the raw material we possess

in abundance. An industry worth millions a year passes out of our hands because we have divorced science from industry and refused to recognise in the laboratory the "promise and potency" of new methods and increased wealth for the service of man. The words of Lord Hartington, spoken at the Polytechnic in London, are true: "If ever our raw materials could be manufactured for the uses and wants of the world better in other countries than in our own, we should become the slaves and servants of the rest of the world, instead of its leaders and masters, as we have been hitherto." Let us look to it. In the "cultured brain, the skilful hand," rightly understood, lies the regeneration of the world.

MANCHESTER STATISTICAL SOCIETY.

ESTABLISHED 1833.

REPORT OF THE COUNCIL

FOR THE FIFTY-FOURTH SESSION (1886-7.)

At the six ordinary meetings held during this session, the following papers have been read, viz., by

The President, Mr. THOS. B. MOXON, "On the Basis of Social Prosperity."

Mr. C. E. HOWARD VINCENT, C.B., M.P., "On the British Empire and Imperial Federation."

Mr. WILLIAM FOGG, "Objections to Free Trade Answered."

Mr. E. VANSITTART NEALE, "On the Social Aspects of Co-operation."

Mr. H. DUNNING MACLEOD, M.A., "On the Modern Science of Economics;" and

Mr. J. H. REYNOLDS, "On Technical Education."

Thirteen ordinary members have been elected during the year, and twelve members have discontinued their subscriptions. The Council have further to record the loss by death of six members, amongst whom special mention must be made of Dr. John Watts, one of the most active members of the Society, who occupied the presidential chair during the sessions 1873-4 and 1874-5; and the Rev. W. A. O'Conor, B.A., who was for several years an active

member of the Council, and took a deep interest in the Society's work.

The average attendance of members and friends at the ordinary meetings for the past session has been 32, against 31 in the previous session, and 30 in the session 1884-5.

In March last the following circular was issued to the members, to which the Council again beg to call their attention, viz.:—

Manchester, March 1st, 1887.

Dear Sir,—The Council of our Society feel that many of the questions of the day offer an attractive field for statistical and economic investigation, and indeed cannot be satisfactorily solved without regard being had to such considerations. They are anxious that this Society, the oldest of the kind in the Kingdom, should take a fitting part in their discussion, and invite your co-operation in their efforts to promote its usefulness. They would therefore request your presence, as often as you can make it convenient to attend, at our Monthly Meetings. The discussions which the papers give rise to are usually found both interesting and instructive, and the information you could contribute upon those topics you take a special interest in would be much appreciated, and would add to the value of our meetings. They would also be glad if you would invite those of your friends who take an interest in such subjects, to enrol themselves as members, so that the Society may become thoroughly representative of statistical research in the North of England. Our syllabus for the present session is completed ; but we hope you may be disposed to submit, for the consideration of the Council, a paper on some subject of popular interest for next session.—I am, Sir, your obedient servant,

Thos. B. Moxon, President.

A Committee consisting of Professor Munro, and Messrs. G. H. Pownall, F. Scott, W. H. S. Watts, and S. T. Woodhouse, has been appointed to investigate the hours of labour, continuity of employment, wages, and rules of the building trades, with special reference to this district, and it is hoped that this Committee may be able to present its report during the ensuing session, and that this inquiry may be followed up by similar investigations into the condition of other industries.

The Council have to acknowledge further valuable donations to the Society's Library during the past session, and they desire to record their thanks to the various donors, a list of whom will be found at the end of this report.

From the statement of receipts and expenditure annexed hereto it will be seen that the balance now in hand is £372 10s. 7d.

MANCHESTER STATISTICAL SOCIETY.

SESSION 1886-7.

LIST OF WORKS PRESENTED TO THE LIBRARY.

By whom Presented.	Works Presented.
The Board of Trade ...	Statistical Abstract for the several Colonial and other possessions of the United Kingdom. 1871-1885.
,, ,,	Statistical Abstract for the principal and other Foreign Countries. 1874 to 1883-4.
,, ,,	Statistical Abstract of the United Kingdom. 1871-1885.
,, ,,	Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions for the year 1885.
,, ,,	Returns of the Rates of Import Duties levied in European Countries and the United States, and in the Colonial and other Possessions of the United Kingdom, upon the produce and manufactures of the United Kingdom. Part 1, Foreign Import Duties.
,, ,,	Agricultural Produce Statistics. 1886.
,, ,,	Annual Statement of the Navigation and Shipping of the United Kingdom. 1885.
,, ,,	Board of Trade Journal. Vol. I. Nos. 3-7.
,, ,,	,, ,, ,, II. ,, 8-11.
,, ,,	Returns of the number of Allotments Detached from and Attached to Cottages in each Union and Parish of England and Wales. 1886.

By whom Presented.	Works Presented.
The Clerk to the Privy Council	Agricultural Returns of Great Britain. 1886.
The Government Statist of Victoria (Australia)	Statistical Register of the Colony of Victoria. 1885. Parts 1 to 5.
,, ,,	Victorian Year Book for 1885-86.
,, ,,	Australasian Statistics for 1885.
,, ,,	Agricultural Statistics for the Colony of Victoria, year ended March 1, 1886.
,, ,,	Report of the Trustees of the Public Library, Museum, and National Gallery of Victoria, with the Reports of the Sectional Committees, 1885.
Department of State, Washington, per Worthington C. Ford, Esq.	Consular Reports, Nos. 61 to 78.
	Index to Consular Reports, Nos. 1 to 59.
,, ,,	Commercial Relations of the United States, 1884-5.
,, ,,	Customs duties imposed by Foreign Nations upon American produce and manufactures.
The Institute of Bankers	Copies of Journal. Nov., 1886, to June, 1887.
University College, London	Calendar. Session 1886-7.
Government of Bulgaria	Statistique du Commerce de la Principauté de Bulgarie avec les pays étrangers pendant l'année, 1883.
The Ministry of Agriculture, Industry, & Commerce (Rome), per Signor Louis Bodio	Movimento Commerciale del Regno d'Italia nell' anno 1885
,, ,,	Movimento della navigazione nei porti del Regno nell' anno, 1885.
,, ,,	Bollettino Mensile delle Situazioni dei Conti degli Istituti d'Emissione. Anno 17, Nos. 3 to 12; Anno 18, Nos. 1 to 4.
,, ,,	Casse di Risparmio. 2 vols.

By whom Presented.	Works Presented.
The Ministry of Agriculture, Industry, & Commerce (Rome), per Signor Louis Bodio	Bollettino di Legislazione e Statistica, Doganale e Commerciale. 1886 and 1887.
,, ,,	Bollettino Semestrale del Credito Cooperativo ordinario, agrario, e fondiario. Anno 3, 2° Semestre; Anno 4, 1° Semestre.
,, ,,	Annali di Statistica, 7 vols.
,, ,,	Atti dell Giunta per la Inchiesta Agraria e sulle condizione delle Classe Agricola. Vol. 15. Tomo II.
,, ,,	Relazione Statistica dei Telegrafi del Regno d'Italia nell' anno 1884.
,, ,,	Relazione Statistica sulla construzione e sull' esercizio delle Strade Ferrate Italiana per l'anno 1884.
,, ,,	Relazione Medico Statistica sulle condizione sanitarie dell' esercito Italiano, 1884.
,, ,,	Ventesima Relazione sul servizio postale in Italia. 1884-5.
,, ,,	Bilanci Provinciale per gli anni, 1883-4.
,, ,,	Notizie intorno alle condizione dell' agricoltura, variazioni del fitto dei Terrene.
,, ,,	Bulletin International de Statistique. Tome I. 3^{me} et 4^{me} livraisons.
,, ,,	Movimento degli Infermi negli ospedali civili del Regno anno 1884.
,, ,,	Statistica delle Tasse Communali applicate negli anni 1881-84.
,, ,,	Resultati dell Inchiesta condizioni Igieniche e sanitarie.
,, ,,	Statistica dei Debiti communali e provinciali per mutui al 31 Dicembre degli anni 1882-3-4.
,, ,,	Statistica delle Stampa periodica al Dicembre 1885.
,, ,,	Bilanci Communali per l'anno 1884.

By whom Presented.	Works Presented.
The Ministry of Agriculture, Industry, & Commerce (Rome), per Signor Louis Bodio	Della Leva sui giovani nati nell' anno 1865.
	Movimento della Navigazione nei Porti del Regno nell' anno 1885.
	Annuaria Statistica Italiano. Anno 1886.
,, ,,	Annali dell' Industria e del Commercio, 1886, 2 vols; 1887, 1 vol.
,, ,,	Annali del Credito e della Prevedenza, 1886, 1 vol.
,, ,,	Statistica Giudiziari Civile e Commerciale per l' anno 1884.
,, ,,	Notizie Intorno alle Condizione dell' Agricoltura I conti culturali del frumento.
,, ,,	Statistica dell' Istruzione Secondaria e Superiore per l'anno scolastica 1884-85.
,, ,,	Popolazione-Movimento dello Stato Civile. 1885.
,, ,,	La esposizione delle invenzioni a Londra nell' anno 1885.
,, ,,	Bollettino delle R. Accedemia Medica di Genova. Anno Secondo 1886.
,, ,,	Movimento della popolazione 1885.
,, ,,	Atti della Commissione d' Inchiesta per la Revisione del tarifa doganale. Parte 1, agraria, fascicolo 2-8, and parte industriale, fasciolo 1-4.
,, ,,	Movimento dei prezzi di Alcuni generi alimentali dal 1862-85.
,, ,,	Statistica delle emigrazione Italiano per gli anni 1884 e 1885.
,, ,,	Statistica del Commercia speciale di Importazione e di esportazione. 1887. 4 parts.
,, ,,	Statistica Giudiziaria Penale per l'anno 1884.
,, ,,	Movimento della Delinquenza in Italia 1873 al 1883.
,, ,,	Bollettino di Notizie Commerciali, Nos. 23-52, 1886. Nos. 1-23, 1887.
,, ,,	Appendice al Bollettino semestrale del credito e del risparmio, 1886.

By whom Presented.	Works Presented.
The Ministry of Agriculture, Industry, & Commerce (Rome), per Signor Louis Bodio	Statistica dell' istruzione elementare per l'anno Scolastico 1883-84.
„ „	Bollettino di notizie sul Credito e la Previdenza. Anno 4, Nos. 10 to 24, and Index; Anno 5, Nos. 1 to 9.
„ „	Actes du premier Congrès international d'Anthropologie Criminelle. Biologie et Sociologie.
	Bilancio Tecnico del monte pensioni per gli insegnanti pubblici elementari.
The Health Society of Milan, per Signor Bodio	Giornale della Societa Italiana d'Igiene. Anno 8, Nos. 5 to 12; Anno 9, Nos. 1 to 4.
The London Statistical Society.....	Copies of their Journal for 1886-87.
„ „	Catalogue of the Library and Index.
The British Association for the Advancement of Science ...	Report of the 56th Annual Meeting. Birmingham, 1886.
The Danish Political Economy Society...	Nationalokonomisk Tidsskrift, 1886, parts 4 to 6; 1887, parts 1 to 3.
M. Alfred de Foville (Ministère des Finances, Paris)	Bulletin de Statistique et de Legislation Comparée, June, 1886, to May, 1887.
	Table des matieres contenues dans les vingt premiers volumes.
Herr Josef Körosi (Buda-Pesth).....	Bulletin Annuel des Finances des Grandes villes. Sixieme Année, 1882.
„ „	Catalogue Raisonné de L'exposition du Bureau de statistique de la ville de Buda-Pest. Redigé par Josef Körosi.
„ „	Armuth und Todesursachen, zugleich ein Beitrag zur methodologie der statistik von Josef Körosi.
„ „	Zweite Antwort in Sachen der Berechnung der relativen intensitat von Josef Körosi.
„ „	Die Bauthatigkeit Buda-Pest in den Jahren 1875-84.
Prof. Erben (Prague) ...	Bulletin hebdomadaire de Prague, 1886-87.

By whom Presented.	Works Presented.
The Vice-President of the Junta de Aranceles y Valoraciones (Madrid)	Supplemento à las Memorias Commerciales Nos. 83 to 107.
British and Foreign Bible Society	Eighty-second Annual Report, 1886.
Manchester Scientific Students'Association	Report and Proceedings for the year 1885.
American Geographical Society	Bulletin of the American Geographical Society. 1886-87. Eleven numbers.
Manchester Association of Engineers...	Papers read before their Association. 1886-87. (8.)
Manchester Accountants Students' Society.....	Transactions. 1885.
Statistical and Social Enquiry Society of Ireland.....	Journal. July 1886 and Feb. 1887.
Der Vereins fur Erdkunde Leipzig	Mittheilungen der Vereins fur Erdkunde zu Leipzig. 1884-85.
F. E. M. Beardsall	Price of Corn and Wages of Labour. 1826. Sir Edward West.
„ „	Robert Gladstone & Co.'s Price Lists. 1840-1842.

MANCHESTER STATISTICAL SOCIETY.

Dr. STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE SESSION 1886-7. **Cr.**

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To Balance brought from last year, viz. :—			By Rent of Rooms		10 10 0
Salford Corporation Loan...	300 0 0		„ Annual Dinner Expenses		47 11 0
Cash at Bankers.....	84 13 7		„ Tea at Ordinary Meetings... ..		8 10 2
		384 13 7	„ Printing Account, viz. :—		
„ Annual Dinner—Produce of Ticket		38 17 0	Transactions and Index...	53 11 1	
„ Interest on Salford Corporation Loan.....		11 12 0	Circulars and Stationery..	21 10 6	
„ Interest allowed by Bankers...		1 4 0			75 1 7
„ Transactions Sold		1 1 0	„ Books Purchased & Bookbinding		7 3 0
„ Subscriptions, &c., viz. :—			„ Advertising Meetings..... ...		3 4 0
Arrears (12).....	8 8 0		„ Travelling Expenses		3 0 0
Admission Fees (11)	5 15 6		„ Postages and Petty Expenses..		5 8 3
Annual Subscriptions (153)	81 7 6		„ Balance in hand, viz. :—		
		95 11 0	Salford Corporation Loan.	300 0 0	
			Cash at Bankers	72 10 7	
					372 10 7
		£532 18 7			£532 18 7

104, King Street, Manchester,
24th June, 1887.

Examined and found correct,

JOSEPH T. MURRAY,
CHARTERED ACCOUNTANT, AUDITOR.

MANCHESTER STATISTICAL SOCIETY.

ESTABLISHED 1833.

LIST OF OFFICERS OF THE SOCIETY,

SESSION 1886-7.

President :

THOMAS B. MOXON.

Vice-Presidents :

EDWIN GUTHRIE. | J. E. C. MUNRO, LL.D.

Treasurer :

WM. E. A. AXON.

Secretaries :

FRANCIS E. M. BEARDSALL. | GEORGE H. POWNALL.

Auditor :

JOSEPH T. MURRAY.

Librarian :

CHARLES W. SUTTON.

Ordinary Members who have Passed the Chair :

R. N. PHILIPS.
JAMES HEYWOOD, F.R.S.
EDWARD HERFORD.
DAVID CHADWICK.
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THOMAS READ WILKINSON.
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MANCHESTER STATISTICAL SOCIETY.

LIST OF ORDINARY MEMBERS,

JUNE 24TH, 1887.

Adamson, Professor Robert, M.A., LL.D., The Owens College, Manchester.
Alexander, J. F., 4, St. James's-square, Manchester.
Appleby, William, 47, Spring Gardens, Manchester.
Arnold, H. C., The Thorns, Didsbury.
Ashton, Thomas, Charlotte-street, Manchester.
Aspland, Lees, Dukinfield.
Atkinson, Joseph, Atkinson-road, Ashton-upon-Mersey.
Axon, W. E. A., Fern Bank, Higher Broughton.

Backhouse, J. E., Darlington.
Bailey, Wm. Hy., Summerfield, Eccles New-road, Salford.
Baker, Henry, Manchester and Salford Bank, Manchester.
Ball, E. C., 20, Ducie-street, Oxford-road, Manchester.
Ballantine, Major Robert, Crumpsall.
Bamber, Wm., Waterloo Mill, Bolton.
Barclay, Robert, 17, Major-street, Manchester.
Bardsley, Samuel, Manchester and County Bank, Manchester.
*Beardsall, Francis E. M., 25, Booth-street, Manchester.
Behrens, Gustav, 36, Princess-street, Manchester
Behrens, Henry, Wilbraham-road, Fallowfield.
Beith, J. A., Bridge-street, Manchester.
Bennie, Andrew, District Bank, Manchester.
Bishop, John Le Marchant, 100, Mosley-street, Manchester.
Blakeley, Robert P., Church Croft, Whalley Range, Manchester.
Boardman, James, 64, Cross-street, Manchester.
Booth, Arthur, Manchester and County Bank, Manchester.
Bright, Jacob, M.P., Alderley Edge, Cheshire.
Broadfield, E. J., Roseleigh, Prestwich, Manchester.
Broderick, Lonsdale, 12, Booth-street, Manchester.
Brooks, Thomas Burnley, 104, King-street, Manchester.
Brooks, Sir W. C., Bart., M.P., 92, King-street, Manchester.
Broome, Joseph, Wood Lawn, Didsbury.
Brown, W. S., 113, Market-street, Manchester.
Browning, Thomas, Booth-street, Manchester.
Bryant, Jesse, Sunnyside, Higher Broughton.
Burnet, J. B., District Bank, Spring Gardens, Manchester.
Burton, Wm. S., Manchester and County Bank, Stalybridge.

Campbell, G. L., Wigan.
Carse, Robert, Chorlton-cum-Hardy.
Chadwick, David, 36, Coleman-street, London, E.C.
Charlewood, E. P., 51, South King-street, Manchester.

Cherry, Albert H., 5, Avenue Parade, Accrington.
Christie, R. C., Glenwood, Virginia Water, Staines.
Chorlton, Thomas, 32, Brazennose-street, Manchester.
Clarke, Edward, Park Cottage, near Macclesfield.
*Clegg, James W., Westfield, Tyldesley.
*Clegg, Robert Joseph, Westfield, Tyldesley.
Clough, Wm., Manchester and Salford Bank, Mosley-street, Manchester.
Cohen, Sigismund, 111, Portland-street, Manchester.
Colley, T. C. Davis, M.A., Park-lane, Higher Broughton.
Collier, Edwin, 44, Brown-street, Manchester.
Collier, Thomas, 33, High-street, Manchester.
Corkill, J. L. G., Cooper-street, Manchester.
Cornforth, W. H., 13, St. Mary's Gate, Manchester.
Craig, John, Manchester and Salford Bank, Limited, Salford.

Dickins, Thomas, Edgemoor House, Higher Broughton.
Dreydel, Thomas, Haworth's Buildings, Cross-street, Manchester.
Dun, John, Parr's Banking Company, Limited, Warrington.

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